

JVC

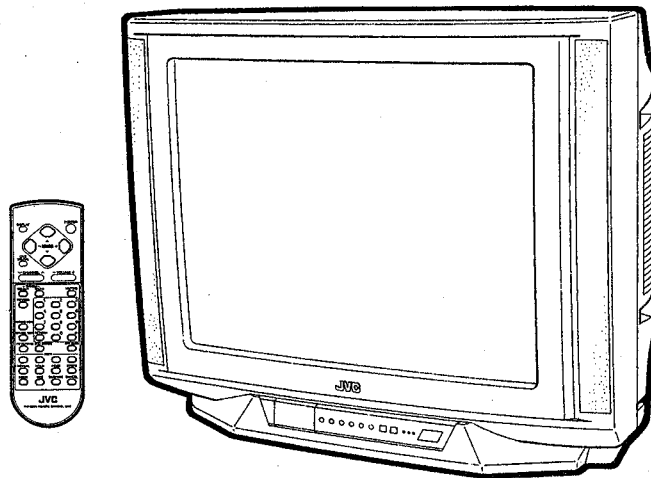
SERVICE MANUAL

COLOUR TELEVISION

BASIC CHASSIS

CD

AV-S33MX2



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SPECIFICATIONS

Item	Content
Dimensions(W × H × D)	898mm × 728mm × 562mm
Mass	58.0kg
Colour System (TV/VIDEO)	PAL / SECAM / NTSC 3.58 / NTSC 4.43
TV RF System	CCIR B/ G, I, D/ K, K1, M
Stereo System	Play back Only
Teletext System	Fastext (United Kingdom System) / WST (Standard System)
Receiving Frequency	VHF (VL) 46.25MHz~168.25MHz VHF (VH) 175.25MHz~463.25MHz UHF 471.25MHz~863.25MHz CATV Receives cable channels in Mid (X-Z, S1-S10), Super (S11-S20) & Hyper (S21-S41)
Intermediate Frequency	VIF Carrier 38.0MHz SIF Carrier 32.5MHz (5.5MHz), 31.5MHz (6.5MHz) 33.5MHz (4.5MHz), 32.0MHz (6.0MHz)
Colour Sub Carrier	PAL (4.43MHz), SECAM (4.40625MHz, 4.25MHz), NTSC (3.58MHz, 4.43MHz)
Aerial Input Terminal	75 Ω Unbalanced
Power Input	Rated Voltage AC120~240V, 50 / 60Hz Operating Voltage AC90~260V, 50 / 60Hz
Power Consumption	245W (Max.) / 180W (Avg.)
Picture Tube	Visible size : 80cm measured diagonally
High Voltage	32kV $^{+1}_{-1.5}$ kV(at zero beam current)
Speaker	12cm × 2 Round type
Power Output(Audio)	15W + 15W
Video Input	Video 1Vp-p, 75 Ω Audio (L/R) 500mVrms (-4dBs), High impedance S / Video Y : 1Vp-p Positive (negative sync provided, when terminated with 75 Ω) C : 0.286Vp-p (burst signal, when terminated with 75 Ω)
Output	Video 1Vp-p, 75 Ω Audio (L/R) 500mVrms (-4dBs), Low impedance
Headphone Terminal	Stereo mini jack
Remote Control Unit	RM-C232 (Battery size:AA/R6/UM-3 Dry cell battery × 2)

Design & specifications are subject to change without notice.

OPERATING INSTRUCTIONS [AV-S33MX2]

JVC



COLOUR TELEVISION

AV-S33MX2

INSTRUCTIONS

Thank you for purchasing this JVC colour television.
To ensure your complete understanding, please read this manual thoroughly before operation.

WARNING:

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION:

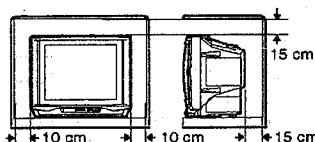
TO ENSURE PERSONAL SAFETY, OBSERVE THE FOLLOWING RULES REGARDING THE USE OF THIS UNIT.

1. Operate only from the power source specified on the unit.
2. Avoid damaging the power plug and power cord.
3. Avoid improper installation and never position the unit where good ventilation is unattainable.

When installing this television, distance recommendations must be maintained between the floor and wall, as well as instalment in a tightly enclosed area or piece of furniture. Adhere to the minimum distance guidelines shown for safe operation.

4. Do not allow objects or liquid into the cabinet openings.
5. In the event of a fault, unplug this TV and call a service technician. Do not attempt to repair it yourself or remove the rear cover.

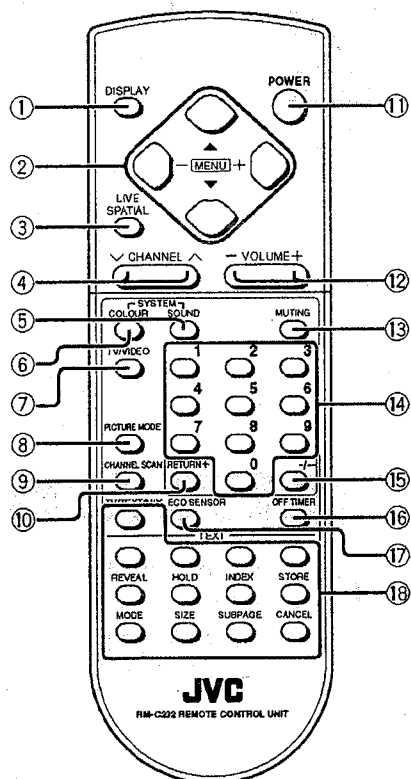
When you don't use this TV for a long period of time, be sure to disconnect the power plug from the AC outlet.



Contents

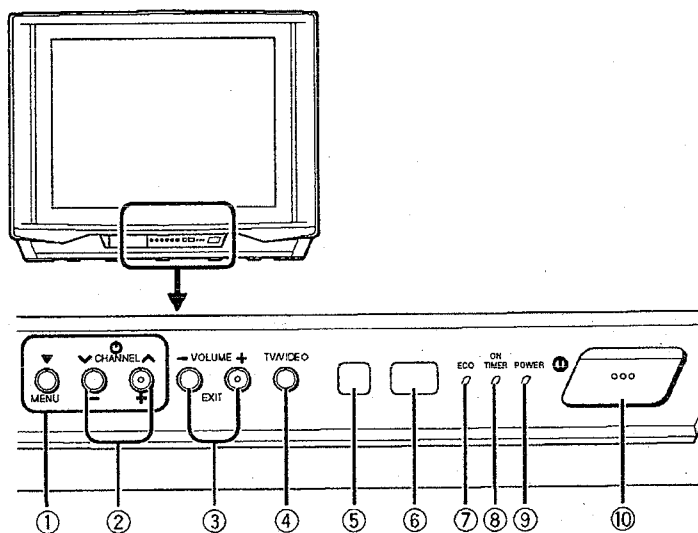
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Locations of remote control buttons



① DISPLAY button	p. 17
② MENU buttons	
• MENU ▲/▼ buttons	
• MENU -/+ buttons	
③ LIVE SPATIAL button	p. 15
④ CHANNEL V/∧ buttons	p. 12
⑤ SOUND SYSTEM button	p. 15
⑥ COLOUR SYSTEM button	p. 15
⑦ TV/VIDEO button	p. 14
⑧ PICTURE MODE button	p. 15
⑨ CHANNEL SCAN button	p. 12
⑩ RETURN + button	p. 17
⑪ POWER button	p. 5, 12, 13
⑫ VOLUME -/+ buttons	p. 13
⑬ MUTING button	p. 13
⑭ Number buttons	p. 12
⑮ -/-- button	p. 12
⑯ OFF TIMER button	p. 18
⑰ ECO SENSOR button	p. 17
⑱ Teletext buttons	p. 21

Locations of front panel buttons and lamps



① MENU buttons	p. 19
• MENU button	
• MENU -/+ buttons	
② CHANNEL V/∧ buttons	p. 13
③ VOLUME -/+ buttons	p. 13
④ TV/VIDEO button	p. 14
⑤ ECO sensor	
⑥ Remote control sensor	
⑦ ECO lamp	p. 17
⑧ ON TIMER lamp	p. 18
⑨ POWER lamp	p. 5, 12, 13
⑩ Main power button	p. 5, 13

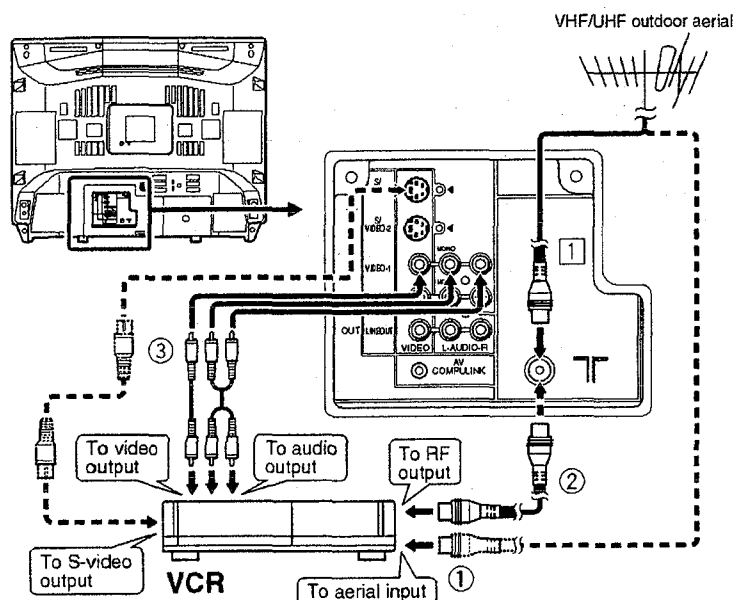
Preparation

1. Connecting the aerial and VCR

If not connecting a VCR (video cassette recorder), do ①.

If connecting a VCR, proceed ① → ② → ③.

- You can view images from the VCR without doing ③. For details, see "To view images from a VCR connected to the TV with only an aerial cable" on page 14.



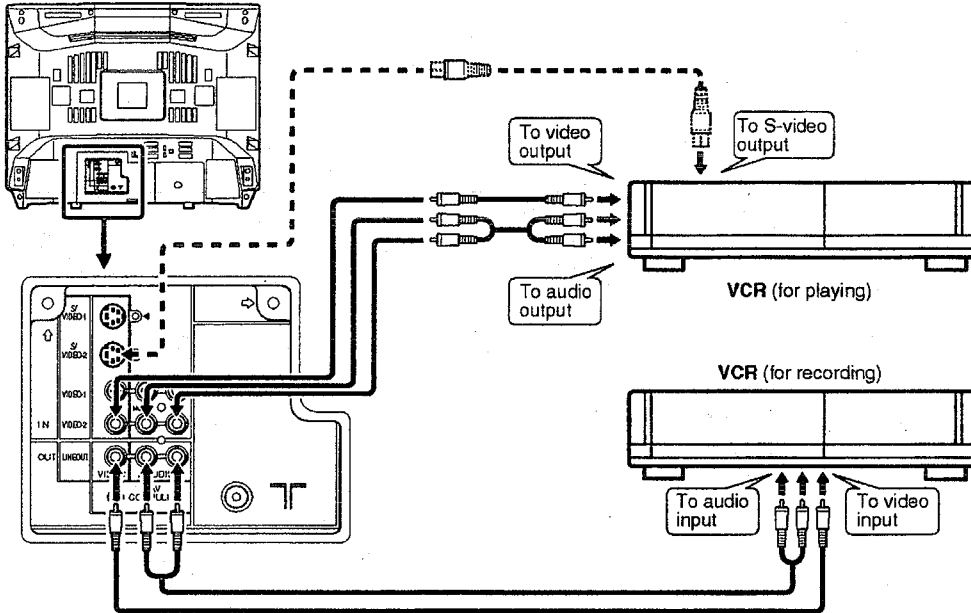
Notes:

- For further details, refer to the manuals provided with the devices you are connecting.
- Connecting cables are not supplied.
- When connecting monaural audio to the TV, use the L/MONO jack.
- The sound and picture that you are watching are output from LINE OUT jacks on the rear panel.
- If you have an AV Compu Link capable device and want to connect the TV and that device to AV Compu Link, then first of all read page 20 of the "AV Compu Link Connection" and then read the explanation given here.

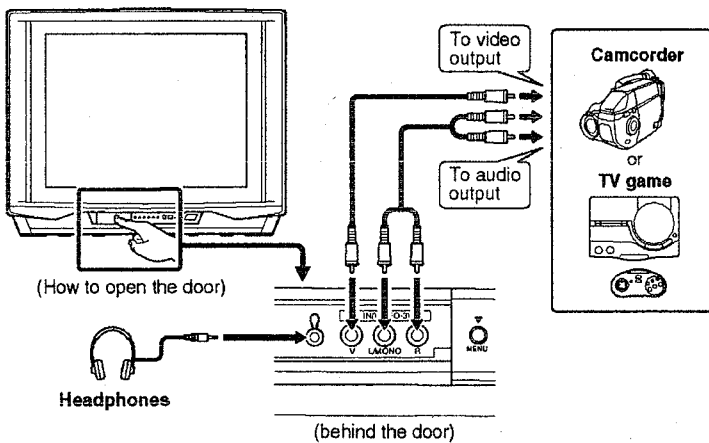
Preparation

2. Connecting other external devices

Devices which can be connected to the terminals on the rear panel:



Devices which can be connected to the terminals on the front panel:



Note:

- Use headphones with a stereo mini jack (dia. 3.5 mm). When using headphones, the speaker sound output is disabled.

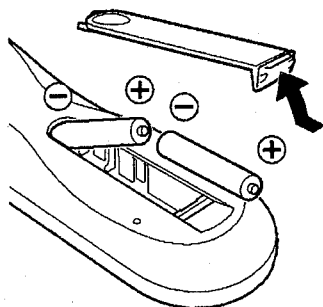
Preparation

3. Connecting the power cord

Insert the Power plug into an AC outlet.

4. Inserting batteries into the remote control

Correctly insert two batteries, observing the $\oplus$ and $\ominus$ polarities, inserting the $\ominus$ end first.


CAUTION:

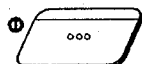
- Follow the cautions printed on the batteries.

Notes:

- Use AA/R06/UM-3 dry cell batteries.
 - Battery life is approximately six months to one year depending on frequency of use.
 - If the remote control operates erratically, replace the batteries.
 - We recommend that you use the supplied batteries initially and replace them as soon as operation becomes erratic.
- The supplied batteries are for testing, not regular use.

5. Turning your TV on

- Press the Main power button on the TV to turn the TV's main power on.



The POWER lamp lights red (main power on), then green (TV on).

If the POWER lamp stays red and does not change to green:

Your TV is in the standby mode. Press the POWER button on the remote control to turn your TV on.


To turn your TV off:

Press the POWER button on the remote control. Your TV enters the standby mode.

To turn the TV's main power off:

Press the Main power button on the TV. The POWER lamp goes off.

Note:

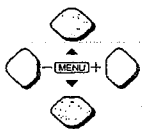
- You can also turn on your TV by pressing the CHANNEL V/A button on your TV.

Preparation

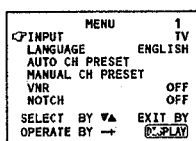
6. Selecting the on-screen language

You can select one of three languages for the on-screen display. The displayed menus on the screen are described in the selected language. In this manual, on-screen descriptions are given in English. Select ENGLISH.

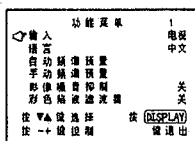
1. Press MENU ▲/▼ to display the following menu.



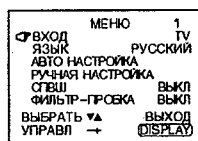
The following menu is displayed in one of three languages.



English



Chinese

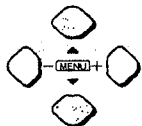


Russian

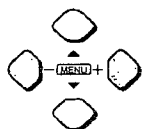
Notes:

- If a different menu is displayed, repeatedly press the MENU ▲/▼ button until this menu is displayed.
- If the menu appears in English, the TV's on-screen language is already set to English, so you can skip steps 2 and 3.
- For details on menu operations using the front control buttons on the TV, see "Menu operations using the front control buttons on the TV" on page 19.

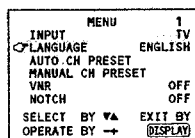
2. Press MENU ▲/▼ to select the second item on the menu.



3. Press MENU -/+ to select ENGLISH.



The menu is displayed in English.



- Proceed to "7. Presetting TV stations" on the following page.

Note:

- If you want to complete operations at this stage, press the DISPLAY button to turn the menu display off.

DISPLAY



7. Presetting TV stations

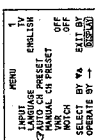
To view a TV programme, you must first preset TV stations to channels on the TV. This TV has 120 channels (channel 1 to 119 and channel AV). You can choose between two functions, the Auto Channel Preset and Manual Channel Preset and preset TV stations to channels on TV.

Auto Channel Preset

Auto Channel Recall
You can automatically preset all TV stations that can be received on your TV to channels in one simple operation.

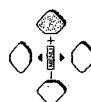
1. Press MENU to select AUTO CH PRESET in the "MENU 1" menu.

To display this menu:
Repeatedly press MENU until it is displayed.



2. Press MENU -/+ to start the Auto Channel Preset function.

">>> ON SEARCH" is displayed on the screen.
When you have finished presetting all TV channels that can be received on your TV, the display will go out and the Auto Channel Preset function will end.



Votes:

- After you are finished making the presets you can select unwanted channels to delete or to skip over. (See pages 10 and 11.)
- For details on menu operations using the front control buttons on the TV, see "Menu operations using the front control buttons on the TV" on page 19.

Notes:

- Notes:** When you use this function, no station is preset to the channel AV. Channel AV is offered for viewing images from a VCR connected to your TV with only an aerial cable. For more details, see "To view images from a VCR connected to the TV with only an aerial cable" on page 14. If the Auto Channel Preset does not work well, preset TV stations manually. For details, see "Manual Channel Preset" on page 8. To stop the Auto Channel Preset, press the MENU $\rightarrow$ Auto button.

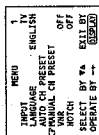
Preparation

Manual Channel Preset

You can manually preset the desired TV stations to the desired channels.

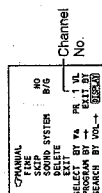
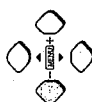
1. Press MENU to select MANUAL CH PRESET in the "MENU 1" menu.

To display this menu:
Repeatedly press MENU ▲/▼ button until it is displayed.



2 Press MENU -/+.

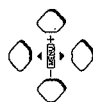
The sub-menu is displayed.



Note:

- Note:**
The channel No. is displayed as a PR No. For example, channel 1 will be displayed as PR 1. However, channel AV will be displayed as AV.

3. Press MENU +/- to select the channel No. to be preset.



4. Press VOLUME +/- to start selection of the TV station.



">>>" or "<<<" is displayed on the screen.

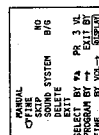
>>> or <<< is displayed on the screen.

- If you have selected the wrong TV station for preset, repeatedly press the **VOLUME +/-** button until the desired TV station is selected.

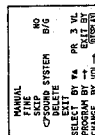
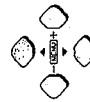
If the picture is not clear:

Use the Fine function to fine-tune the TV station.

1. Press MENU Δ / ∇ to select FINE.
2. Hold VOLUME $\rightarrow$ / $\leftarrow$ down to fine-tune the TV station so that the best image is displayed on screen.



5. Press MENU ▲/▼ to select SOUND SYSTEM.



Preparation

Note:

- For the sound systems in each country or region, refer to the table "The Broadcasting Systems of Each country or Region" below.

6. Press **VOLUME +/-** to select the appropriate sound system.



7. Press **MENU ▲/▼** to select **MANUAL**.



8. Repeat steps 3 to 7 if you want to preset another TV station to a channel.

9. Press **DISPLAY** to turn the display off.



The Broadcasting Systems of Each Country or Region

Area	Country or Region	Colour	System	Sound
Asia, Middle East	Bahrain, Kuwait, Oman, Qatar, United Arab Emirates, Yemen, etc.	PAL		B/G
	Indonesia, Malaysia, Singapore, Thailand, India, etc.	PAL		D/K
	China, Vietnam, etc.	PAL		I
	Hong Kong, etc.	SECAM		B/G
	Islamic Republic of Iran, Lebanon, Saudi Arabia, etc.	NTSC		M
Europe	Philippines, Taiwan, Myanmar, etc.	SECAM		D/K
	Russia, etc.	PAL		B/G
	Czech Republic, Poland, etc.	PAL		I
	Germany, Holland, Belgium, etc.	PAL		B/G
Oceania	UK, etc.	PAL		I
	Australia, New Zealand, etc.	PAL		B/G
Africa	Republic of South Africa, etc.	PAL		B/G
	Nigeria, etc.	SECAM		B/G
	Egypt, Morocco, etc.			

Preparation

■ Skip

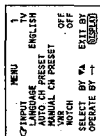
When selecting channels, you can set undesired channels to be skipped. Channels set to be skipped cannot be selected by the **CHANNEL V/A** buttons nor the **CHANNEL SCAN** button.

Note:

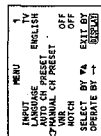
- Channels to which a station has not been preset are automatically set to be skipped.

1. Press **MENU ▲/▼** to display the "MENU 1" menu.

- If a different menu is displayed, repeatedly press the **MENU ▲/▼** button until this menu is displayed.

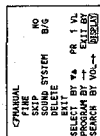


2. Press **MENU ▲/▼** to select **MANUAL CH PRESET**.

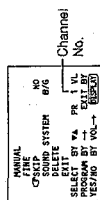


3. Press **MENU +/-**.

The sub-menu is displayed.



4. Press **MENU ▲/▼** to select **SKIP**.



Note:

- The channel No. is displayed as a PA No. For example, channel 1 will be displayed as PA 1. However, channel AV will be displayed as AV.

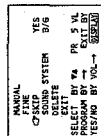
5. Press **MENU +/-** to select the channel you want to skip.

6. Press **VOLUME +/-** to select **YES**.

The channel you selected is set to be skipped.

To cancel the Skip:

Select NO.



7. Repeat steps 5 and 6 if you want to set another channel to skip.

8. Press **DISPLAY** to turn the display off.

Viewing a Television Programme

Using the remote control

1. Press POWER to turn your TV on.

The POWER lamp changes from red to green.



- Notes:**
- If your TV does not turn on, press the Main power button on the TV then press the POWER button again.
 - You can also turn on your TV by pressing any of the following buttons:
 - the CHANNEL V/A button
 - the Number buttons
 - the TV/VIDEO button

2. Select a channel.

Up/down selection



1. Press CHANNEL V/A.

- Note:**
- Up/down and Channel Scan selections cannot be selected for channels to which the Skip has been set to YES. (See 'Skip' on page 10)

If the colour is abnormal:
Repeatedly press the COLOUR SYSTEM button to select the appropriate colour system. For details, see 'Colour System' on page 15.



Direct selection

1. Repeatedly press the $\swarrow$ button to select the desired mode then press the Number buttons.

---: 1-digit mode

(example)

Channel 6 $\rightarrow$ Press 6.

Channel AV $\rightarrow$ Press 0.

---: 2-digit mode

(example)

Channel 6 $\rightarrow$ Press 0, 6.

Channel 16 $\rightarrow$ Press 1, 6.

Channel AV $\rightarrow$ Press 0, 0.

---: 3-digit mode

(example)

Channel 6 $\rightarrow$ Press 0, 0, 6.

Channel 16 $\rightarrow$ Press 0, 1, 6.

Channel 116 $\rightarrow$ Press 1, 1, 6.

Channel AV $\rightarrow$ Press 0, 0, 0.

Channel Scan selection

You can search for the channel you want to view while scanning all of the channels that can be viewed on this TV.



- Press CHANNEL SCAN.
Channels will be scanned in channel No. order.
- When the channel that you want to view appears, press CHANNEL SCAN again before scanning for the next channel begins.

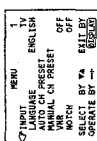
Preparation

Delete

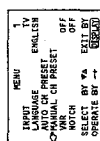
You can delete a TV station already preset to a channel.

1. Press MENU Δ/∇ to display the "MENU 1" menu.

If a different menu is displayed, repeatedly press the MENU Δ/∇ button until this menu is displayed.

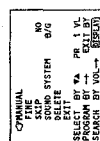


2. Press MENU Δ/∇ to select MANUAL CH PRESET.

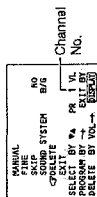


3. Press MENU $\swarrow$.

The sub-menu is displayed.



4. Press MENU Δ/∇ to select DELETE.



5. Press MENU $\swarrow$ to select a channel of TV station you want to delete.

6. Press VOLUME $\swarrow$.

The station preset to that channel is deleted.
When you delete a station set to a channel, the channel number of every station after it moves forward by one.

7. Repeat steps 5 and 6 if you want to delete another TV station.

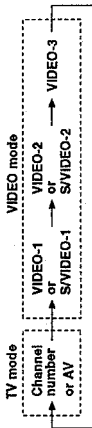
8. Press DISPLAY to turn the display off.

Viewing Images from an External Device

You can view images from VCRs or other external devices connected to your TV.

1. Repeatedly press TV/VIDEO to select the VIDEO mode according to the jacks to which the external device you want to view is connected.

Each press of the TV/VIDEO button changes the mode as follows.



TV mode:

This mode is for viewing TV programmes. Repeatedly press the TV/VIDEO button, or press the CHANNEL/V/A buttons, or press the number buttons to return to this mode.

When "S/VIDEO-1" or "S/VIDEO-2" is displayed:

The TV shows images from an external device connected to the S terminal.

To view images from a VCR connected to the TV with only an aerial cable:

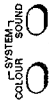
Your VCR must be preset to the channel AV of this TV. Thoroughly read the manual of your VCR, and preset your VCR to the channel AV using the Manual Channel Preset function on page 8. As a result, you can view images from your VCR when you select the channel AV in the TV mode.

To select the VIDEO mode via MENU operation:

1. Repeatedly press the MENU button to select INPUT from "MENU 1" menu.
2. Repeatedly press the MENU +/- button to select the VIDEO mode.

- Notes:**
- This TV has the AV STEREO function for external stereo devices connected to the TV. If stereo signals are input from a connected external device and TV is in a VIDEO mode, sound can be heard in stereo. (In TV mode, sound is always heard monaurally.)
 - When VCRs or other external devices are connected to both the S terminal and the video input jack of the VIDEO-1 or VIDEO-2 terminal, the TV shows images from the VCR on other external devices connected to the S terminal.
 - The TV/VIDEO button on the front panel of the TV can also be used instead of the remote control TV/VIDEO button.

If the colour is abnormal:
Repeatedly press the COLOUR SYSTEM button to select the appropriate colour system. For details, see "Colour System" on page 15.



Viewing a Television Programme

If the sound is abnormal:
Repeatedly press the SOUND SYSTEM button to select the appropriate sound system. For details, see "Sound System" on page 15.



3. Press VOLUME +/- to adjust the sound.



To temporarily render the sound inaudible:
Press the MUTING button.



- To return the sound, press the MUTING button again.

4. To turn your TV off, press POWER.



- The POWER lamp changes from green to red.

Note:

- We recommend that you press the Main power button on the TV to turn the main power off if you do not plan to use your TV for a long time or if you wish to save energy.

Using the front panel buttons on the TV

1. Press CHANNEL V/A to turn your TV on.

The POWER lamp changes from red to green.

Notes:

- If your TV does not turn on, press the Main power button and then press the CHANNEL V/A button again.
- For information on the positions for each front panel button, see "Locations of front panel buttons and lamps" on page 2.

2. Press CHANNEL V/A to select a channel.

3. Press VOLUME +/- to adjust the sound.

4. To turn your TV off, press the Main power button to turn the main power off.

The POWER lamp goes off.

Note:

- If you press the Main power button after your TV turns on immediately, Step 1 is no longer required.

Sound and Picture

Colour System

If the colour is abnormal, select the appropriate colour system. Each press of the **COLOUR SYSTEM** button changes the colour system as follows.

→ AUTO → PAL → SECAM → NTSC4.43 ← NTSC3.58 ←

AUTO:
Automatic colour system selection.

Notes:

- For the colour systems in each country or region, see the table "The Broadcasting Systems of Each Country or Region" on page 9.
- If the colour is abnormal even though you selected AUTO, change the appropriate colour system manually.

Sound System

If the sound is abnormal, select the appropriate sound system. Each press of the **SOUND SYSTEM** button changes the sound system as follows.

→ B/G → I → D/K → M →

Notes:

- For the sound systems in each country or region, see the table "The Broadcasting Systems of Each Country or Region" on page 9.
- You cannot select any sound system when in VIDEO mode.

Picture Mode

You can select one of three picture adjustment modes. Repeatedly press the **PICTURE MODE** button to select the desired mode.

BRIGHT:
Heightens contrast and sharpness.

STANDARD:
Standardizes picture adjustments.

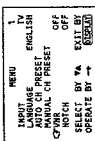
SOFT:
Softens contrast and sharpness.

Note:

- Pressing the **PICTURE MODE** button returns all the picture settings in the "MENU 3" menu to their default settings.

VNR (Video Noise Reduction)

You can reduce the picture noise. 1. Repeatedly press **MENU Δ/∇** to display the "MENU 1" menu, and press **MENU Δ/∇** to select VNR.



2. Press **MENU Δ/∇** to select "ON" or "OFF".

ON:
Activates the VNR. Select "ON" when viewing a noisy picture.

OFF:
Cancels the VNR.

3. Press **DISPLAY** to turn the display off.

Sound and Picture

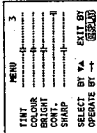
Picture/Sound Adjustment

You can adjust the picture and sound as you like.

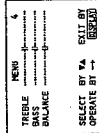
1. Press **MENU Δ/∇** to display a menu.

2. Press **MENU Δ/∇** repeatedly to display the desired menu.

To adjust the picture:
Display the "MENU 3" menu.



To adjust the sound:
Display the "MENU 4" menu.



3. Press **MENU Δ/∇** to select an item and press **MENU Δ/∇** to adjust it.

Item	+
TINT (tint)	Greenish
COLOUR (colour depth)	Deeper
BRIGHT (brightness)	Brighter
CONTRAST (contrast)	Higher
SHARP (sharpness)	Sharper
TREBLE (high-frequency sound level)	Higher
BASS (low-frequency sound level)	Higher
BALANCE (left/right speaker balance)	Right

Notes:

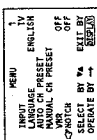
- TINT (tint) is displayed only when viewing images from NTSC3.58 or NTSC4.43 colour systems.

4. Press **DISPLAY** to turn the display off.

Notch

You can create a smoother picture by decreasing the dot pattern noise that often appears within the boundaries between colours in a picture.

1. Repeatedly press **MENU Δ/∇** to display the "MENU 1" menu, and press **MENU Δ/∇** to select NOTCH.



2. Press **MENU Δ/∇** to select "ON" or "OFF".

ON:
Activates Notch.

OFF:
Cancels Notch.

3. Press **DISPLAY** to turn the display off.

Notes:

- NOTCH is not displayed in Menu 1 in the following cases:
 - when you are watching either a SECAM or NTSC 4.43 system programme.
 - (Except when you are watching a picture input from the S-video input.)
 - when you are watching a teletext programme in MIX mode.
- When you turn the Notch function on the picture will change to softer picture.

Other Features

Display

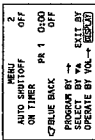
You can continuously display the current channel number or VIDEO mode on the screen. Press the DISPLAY button. To turn the display off, press the DISPLAY button again.

- Note:**
- When selecting a channel or VIDEO mode with no full signal, indication of selected channel or VIDEO mode becomes fixed on the screen.

Blue Back

You can mute the sound and change the picture into a blue screen while no signals come into the TV, or when the input signals are unstable.

1. Repeatedly press MENU Δ/∇ to display the "MENU 2" menu, and press MENU Δ/∇ to select BLUE BACK.



2. Press MENU Δ/∇ to select "ON" or "OFF".

ON:
Activates the Blue Back.

OFF:
Cancels the Blue Back.

- Notes:**
- To view a broadcast even when the reception signal is poor, set the Blue Back to OFF.
 - Even when the Blue Back is set to OFF, the sound may not be audible.
 - The Blue Back function does not operate in VIDEO mode.

3. Press DISPLAY to turn the display off.

Eco Sensor

You can adjust this TV so that the screen automatically adjusts to the optimum contrast according to the brightness of your room. This function reduces eye strain and the power consumption of this TV. Repeatedly press the ECO SENSOR button to select the desired mode.

ECO SENSOR DISPLAY:

The Eco Sensor function will work. In this mode, the heart mark $\heartsuit$ indicating the brightness of your room is displayed for several seconds each time the brightness changes. The number of heart marks displayed on screen increases as your room becomes darker. Up to six heart marks are displayed.

ECO SENSOR:

The Eco Sensor function will work. However, in this mode, the heart mark $\heartsuit$ will not be displayed even if the brightness of your room changes.

ECO SENSOR OFF:

The Eco Sensor function will not work.

- Note:**
- The ECO lamp will light when The Eco Sensor function is working.

When there is no setting for "Return channel":
When you press the RETURN + button, the channel changes to the previously viewed channel.

Return +

By setting a channel to "Return channel", you can return to that channel with one touch.

1. Press CHANNEL V/A or the Number buttons to select a channel to set to "Return channel".
2. Press RETURN + for more than 3 seconds continuously. "RETURN PLUS PROGRAMMED" appears.
3. When viewing another channel, press RETURN +. The channel changes to the channel set for "Return channel".

To cancel the channel set for "Return channel":

Press the RETURN + button for more than 3 seconds continuously. "RETURN PLUS CANCELLED" appears.

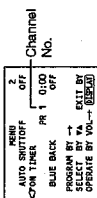
Notes:

- When you turn the TV off, the "Return channel" setting will be canceled.
- When you press the RETURN + button while viewing the channel set for "Return channel", the channel changes to the previously viewed channel.
- When you press the RETURN + button while in a VIDEO mode, the mode switches to TV mode. To return to the channel set for "Return channel", press the RETURN + button again.

On Timer

Your TV will automatically turn on after a certain period of time you have specified.

1. Repeatedly press MENU Δ/∇ to display the "MENU 2" menu, and Press MENU Δ/∇ to select ON TIMER.



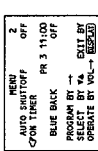
2. Press MENU Δ/∇ to select a channel you want to view when the TV turns on.

Note:

- You cannot select the channel AV, the VIDEO modes, and the channels for which the Skip is set (See "Skip" on page 10).

3. Press VOLUME Δ/∇ to select the period of time after which you want to turn on the TV. The ON TIMER lamp lights and the On Timer starts.

- Each time you press the button, the period of time changes in 15 minute intervals (up to 12 hours).



To cancel the On Timer:
Press the VOLUME Δ/∇ button to return the period of time to "0:00".

4. Press DISPLAY to turn the display off.
5. Press POWER to turn the TV off.

The ON TIMER lamp will stay lit.

Notes:

- If you turn off the TV's main power by pressing the Main power button, the On Timer setting is canceled.
- If you do not turn off the TV after starting the On Timer, once the time set for the On Timer is reached, the channel will automatically switch to the channel set for the On Timer.

While the On Timer is operating:

The ON TIMER lamp lights.

When the time set for the On Timer is reached:

The TV automatically turns on and the channel set for the On Timer is displayed.

Notes:

- For safety reasons the TV will automatically turn off if no operations are made within approximately two hours after the TV is turned on with the On Timer.
- The On Timer and Auto Shutoff have priority over the On Timer.

Off Timer

You can set this TV to turn off automatically within a specified period of time.

Repeatedly press the OFF TIMER button to select the period of time.

Notes:

- The Auto Shutoff function does not turn off the TV's main power.
- The Auto Shutoff will not work for a VIDEO mode.

2. Press MENU Δ/∇ to select "ON" or "OFF".

ON:
Activates the Auto Shutoff.

OFF:

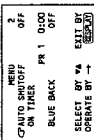
Cancels the Auto Shutoff.

3. Press DISPLAY to turn the display off.

Auto Shutoff

You can set your TV to turn off if no signals are received for about 15 minutes or longer after the end of a broadcast.

1. Press MENU Δ/∇ to display the "MENU 2" menu, and press MENU Δ/∇ to select AUTO SHUTOFF.



Other Features

AV Compu Link Connection

If you have a JVC AV Compu Link capable external device and connect it to this TV with an AV Compu Link cable, it is possible to automatically control the TV via operation of the external device.

For example: (The following functions are enabled!)

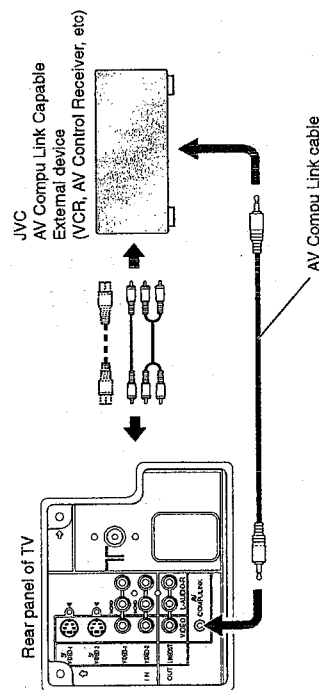
- Simply by pressing the PLAY button on the video device, the TV power can be automatically turned ON and the input mode switched to the video mode of the corresponding terminal for the connected video device (such as a VCR or DVD Player).
- Simply by turning the AV Control Receiver power on/off (standby), the TV power can be turned on/off (standby).
- By switching the AV Control Receiver source selection, the TV's VIDEO mode also switches to the appropriate mode.
- Simply by inserting a pre-recorded tape (a tape with the record safety tab removed) into the VCR, both the VCR and TV power automatically turns on, the TV switches to the appropriate VIDEO mode and the VCR starts playing.

AV Compu Link Connection Method

Which jacks of the TV the external device should be connected to varies depending on the external device. Prior to making the connections, be sure to read the instruction manual of the external device.

When there are no specific instructions in that manual for which jacks to hook up to on the TV, connect the device to the VIDEO-1 jacks on the rear of the TV. The AV Compu Link will not operate correctly if this connection is wrong.

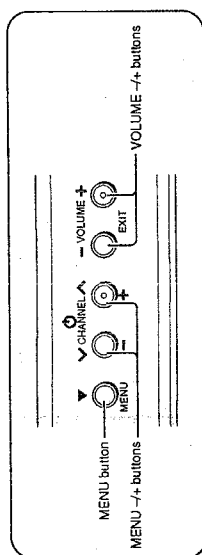
- If your VCR has an A Code/B Code control signal selector (see that instruction manual for details) then the TV jacks you must connect to will vary depending on the VCR control signal setting. If the control signal is set to B code, then connect the VCR to the VIDEO-2 jacks. If the control signal is set to A code, then connect the VCR to the VIDEO-1 jacks.
- Use a cable with dia. 3.5mm (mono) male plugs at both ends for the AV Compu Link Cable. (Not supplied with this TV.)



Other Features

Menu operations using the front control buttons on the TV

You can operate functions in menus using the front control buttons on the TV without having to use the remote control.



1. Press MENU to display the menu.

If the sub-menu is displayed:
The sub-menu cannot be turned off by the VOLUME +/- button when it is displayed. Follow the procedure below to turn the sub-menu display off.

2. Repeatedly press MENU to select the desired function or item.

To select a function or item above the currently selected function or menu:

Repeatedly press the MENU button to proceed to another menu, and then repeatedly press the MENU button again to return to the original menu. Then select the function or item.

3. Press MENU +/- or VOLUME +/- to carry out the desired operation.

For details, see the description for the respective function.

MANUAL	NO
FINE	NO
SELECT	NO
SELECT BY	PR. 1
SELECT BY	PR. 2
SELECT BY	PR. 3
SELECT BY	PR. 4
SELECT BY	PR. 5
SELECT BY	PR. 6
SELECT BY	PR. 7
SELECT BY	PR. 8
SELECT BY	PR. 9
SELECT BY	PR. 10
SELECT BY	PR. 11
SELECT BY	PR. 12
SELECT BY	PR. 13
SELECT BY	PR. 14
SELECT BY	PR. 15
SELECT BY	PR. 16
SELECT BY	PR. 17
SELECT BY	PR. 18
SELECT BY	PR. 19
SELECT BY	PR. 20
SELECT BY	PR. 21
SELECT BY	PR. 22
SELECT BY	PR. 23
SELECT BY	PR. 24
SELECT BY	PR. 25
SELECT BY	PR. 26
SELECT BY	PR. 27
SELECT BY	PR. 28
SELECT BY	PR. 29
SELECT BY	PR. 30
SELECT BY	PR. 31
SELECT BY	PR. 32
SELECT BY	PR. 33
SELECT BY	PR. 34
SELECT BY	PR. 35
SELECT BY	PR. 36
SELECT BY	PR. 37
SELECT BY	PR. 38
SELECT BY	PR. 39
SELECT BY	PR. 40
SELECT BY	PR. 41
SELECT BY	PR. 42
SELECT BY	PR. 43
SELECT BY	PR. 44
SELECT BY	PR. 45
SELECT BY	PR. 46
SELECT BY	PR. 47
SELECT BY	PR. 48
SELECT BY	PR. 49
SELECT BY	PR. 50
SELECT BY	PR. 51
SELECT BY	PR. 52
SELECT BY	PR. 53
SELECT BY	PR. 54
SELECT BY	PR. 55
SELECT BY	PR. 56
SELECT BY	PR. 57
SELECT BY	PR. 58
SELECT BY	PR. 59
SELECT BY	PR. 60
SELECT BY	PR. 61
SELECT BY	PR. 62
SELECT BY	PR. 63
SELECT BY	PR. 64
SELECT BY	PR. 65
SELECT BY	PR. 66
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SELECT BY	PR. 83
SELECT BY	PR. 84
SELECT BY	PR. 85
SELECT BY	PR. 86
SELECT BY	PR. 87
SELECT BY	PR. 88
SELECT BY	PR. 89
SELECT BY	PR. 90
SELECT BY	PR. 91
SELECT BY	PR. 92
SELECT BY	PR. 93
SELECT BY	PR. 94
SELECT BY	PR. 95
SELECT BY	PR. 96
SELECT BY	PR. 97
SELECT BY	PR. 98
SELECT BY	PR. 99
SELECT BY	PR. 100

Demonstration

The demonstration runs

automatically and introduces the menus of this TV's main features.

Note:

- Starting the demonstration may change some part of each of the current function settings.

1. Press MENU ▲/▼ to display a menu.

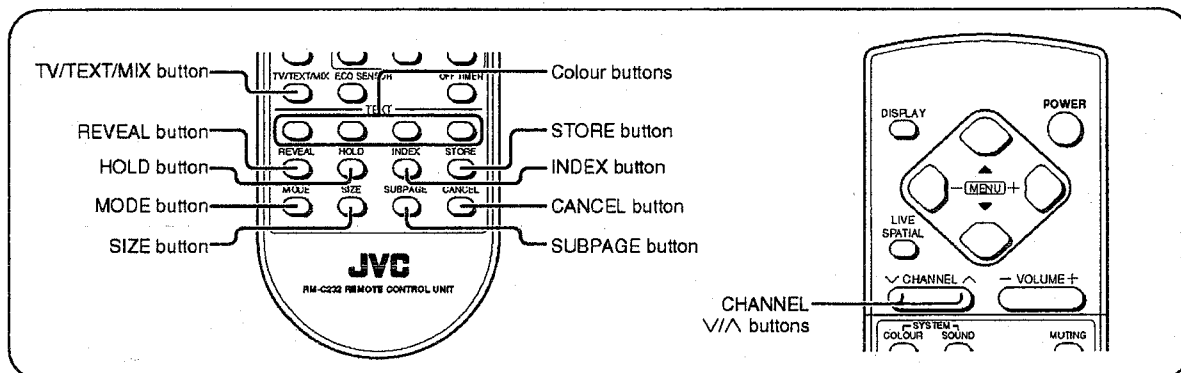
2. Press the +/- button.

The demonstration begins.
• To stop the demonstration, press any button.

Note:

- When operating with the front control buttons on the TV, press the TV's MENU +/- button and the VOLUME +/- button at the same time. To stop the demonstration, press any button.

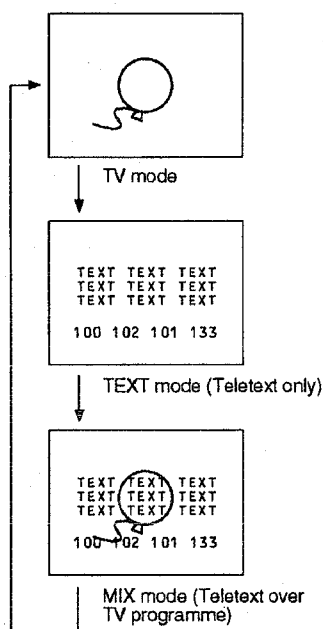
Teletext



Basic Teletext Operation

You can view two types of teletext programmes: Fasttext and WST. Both types of programmes are automatically recognized by your TV.

1. Select a channel with teletext information.
2. Press TV/TEXT/MIX repeatedly to engage TEXT or MIX mode. The mode cycles as follows.



3. Select a page number.

To scan pages:

Press the CHANNEL ∇/Δ button.

Δ : scans forward.

∇ : scans backward.

To select a page directly:

Enter a 3-digit page number using the number buttons.

To select a page with a Colour button:

Press the Colour button corresponding to the page number or item displayed at the bottom of the screen.

Note:

- If you have problem concerning a teletext programme, consult your local dealer or television company.

Display cancel

You can view a normal TV programme while scanning for a teletext page you wish to view.

1. Select the page you want to view. Scanning starts.
2. Press CANCEL. The TV programme appears.
3. Press TV/TEXT/MIX when the page number you wish to view appears in the upper left of the screen.

Page hold

You can hold a page temporarily even as the teletext transmission continues. To do this, press the HOLD button.

Pressing the HOLD or INDEX button, or selecting another teletext page will release the hold mode.

Index return

You can easily return to the index page by pressing INDEX.

Fasttext/WST:

Returns to teletext page 100 or a page which has been specified.

LIST mode:

Returns to the page number displayed in red in the lower left area of the screen.

Teletext

Sub page display

Some teletext pages have sub-pages, which scroll automatically. You can store those pages in memory and view them again later on.

- 1. Select a teletext page with sub-pages.
- 2. Press SUBPAGE. The input position appears at the bottom left of the screen.
- 3. Enter the sub-page number using the number buttons.

Example:
To select the third page, press 0, 0, 0, 3.

Note:
• You can also select a sub-page number by pressing the red or green colour button.

Display size

You can double the height of the teletext display.
To do this, press the SIZE button repeatedly.
The teletext display changes cyclically.

Hidden information reveal

Some teletext pages contain hidden information such as answers to questions. You can reveal the hidden information with this function. To alternate reveal and hide, press the REVEAL button.

Calling up a stored page (List mode)

If you store the number of teletext pages you often view to memory in the List mode, you can quickly call up the desired teletext page whenever you like.

Note:
• You can store up to four teletext page numbers in each channel from 1 to 15. You can store up to four Teletext page numbers to other channels as common page numbers regardless of the channel number.

To call up a stored page:

- 1. Press MODE to engage List mode.
Stored page numbers, are displayed at the bottom of the screen.
- 2. Press the Colour button corresponding to the teletext page you want to view.
• To release List mode, press the MODE button again.

To change a stored page number:

- 1. Select a channel with a teletext programme.
- 2. Press MODE to engage List mode.
Stored page numbers are displayed at the bottom of the screen.
- 3. Select a page number by pressing the corresponding Colour button.
- 4. Enter the three digit teletext page number using the number buttons.
- 5. To change another page number, repeat steps 3 and 4.
- 6. Press STORE until the page number turns momentarily white.
This completes changing the page number.

Troubleshooting

Important: Review all the instructions in this manual.

Problem	Check/Action
Cannot turn TV on	Press the Main power button (see p. 5). Insert the power plug in an AC outlet.
No picture nor sound	Press the TV/VIDEO button to select the correct mode (see p. 14). Check the aerial connections.
Remote control inoperable	Replace the batteries (see p. 5).
The TV turns on suddenly.	The TV will automatically turn on when the On Timer is operated (see p. 18).
The TV turns off suddenly.	The TV will automatically turn off in the following cases. • When the Off Timer or Auto Standby is operated (see p. 18). • When no operations are made within approximately two hours after the TV was turned on with the On Timer (see p. 18).
Abnormal sound	Select the appropriate sound system (see p. 15).
Abnormal colour	Adjust the colour and brightness (see p. 16). Select the appropriate colour system (see p. 15). Set the Picture mode to STANDARD (see p. 15).
Lines or streaks in picture (interference)	Move the components apart until the interference disappears. Reposition the aerial.
Spotted picture (crosstalk)	Move the aerial away from the source of interference. Replace the aerial cable with a coaxial cable, which is less prone to interference.
Double picture (ghost)	Reposition the aerial. Replace with an aerial with good directionality.
Snowy picture (image noise)	Check the aerial connection and aim it correctly. Replace or repair the aerial.
The TV channel changes suddenly.	The channel will automatically be changed when the On Timer operates (see p. 18).
The screen turns blue.	Is the Blue Back set to ON (see p. 17).
No receivable teletext programme	Select a channel with teletext information. You cannot watch teletext recorded on a video tape.

The following are normal occurrences and are not the result of TV malfunctions:

- When you touch the CRT surface, you might feel a slight charge of static electricity. This is because the CRT contains static electricity; it does not affect the human body.
- Your TV may emit a crackling sound due to a sudden change in temperature. There is no problem unless the picture or sound is abnormal.
- When a still bright image (of a white dress, for example) appears on the screen, the image may be coloured. This problem occurs in all CRTs, and when the bright image disappears, the colouration also disappears.
- This TV is equipped with a microcomputer that may operate abnormally due to interference from external devices. If this happens, press the Main power button to turn the main power off and disconnect the power plug from the AC outlet. Then, reconnect the power plug to the AC outlet and press the Main power button again.

Specifications

Model	AV-S33MX2
TV RF systems	B, G, I, D, K, K1, M
Colour systems	PAL, SECAM, NTSC 3.58 / 4.43 MHz
Channel and frequencies	VHF low channel (VL) = 46.25 to 168.25 MHz VHF high channel (VH) = 175.25 to 463.25 MHz UHF channel (U) = 471.25 to 863.25 MHz n Receives cable channels in mid band (X to Z, S1 to S10), super band (S11 to S20) and hyper band (S21 to S41).
Teletext system	Fastext (United Kingdom system), WST (Standard system)
Languages displayed by teletext	English, German, Estonian, Lithuanian, Russian, Czechoslovakian, Ukrainian
Power input	AC120 to 240 V, 50 / 60 Hz (operating AC 90 to 260 V, 50 / 60 Hz)
Power consumption	Maximum 245 W, Average 180 W
Screen size (measured diagonally)	Picture tube 84 cm Visible area 80 cm
Audio output (Rated power output)	15 W + 15 W
Speakers	12 cm round x 2
External input / output	S/VIDEO-1, S/VIDEO-2: S-video input (4 pin mini DIN) VIDEO input (RCA) AUDIO L / R input (RCA)
	VIDEO-3: VIDEO input (RCA) AUDIO L / R input (RCA)
	LINE OUT: VIDEO output (RCA) AUDIO L / R output (RCA)
	Headphone jack: stereo mini jack (dia. 3.5 mm)
	AV Compu Link jack: mono mini jack (dia. 3.5 mm)
Dimensions (W x H x D)	898 mm x 728 mm x 562 mm
Weight	58 kg
Accessories	• Remote control unit: RM-C232 x 1 • AA / R06 / UM-3 dry cell battery x 2

Design and specifications subject to change without notice.

This television does not conform to the PAL-D Chinese broadcasting system.

此种电视机不适用于PAL-D中国广播制式。

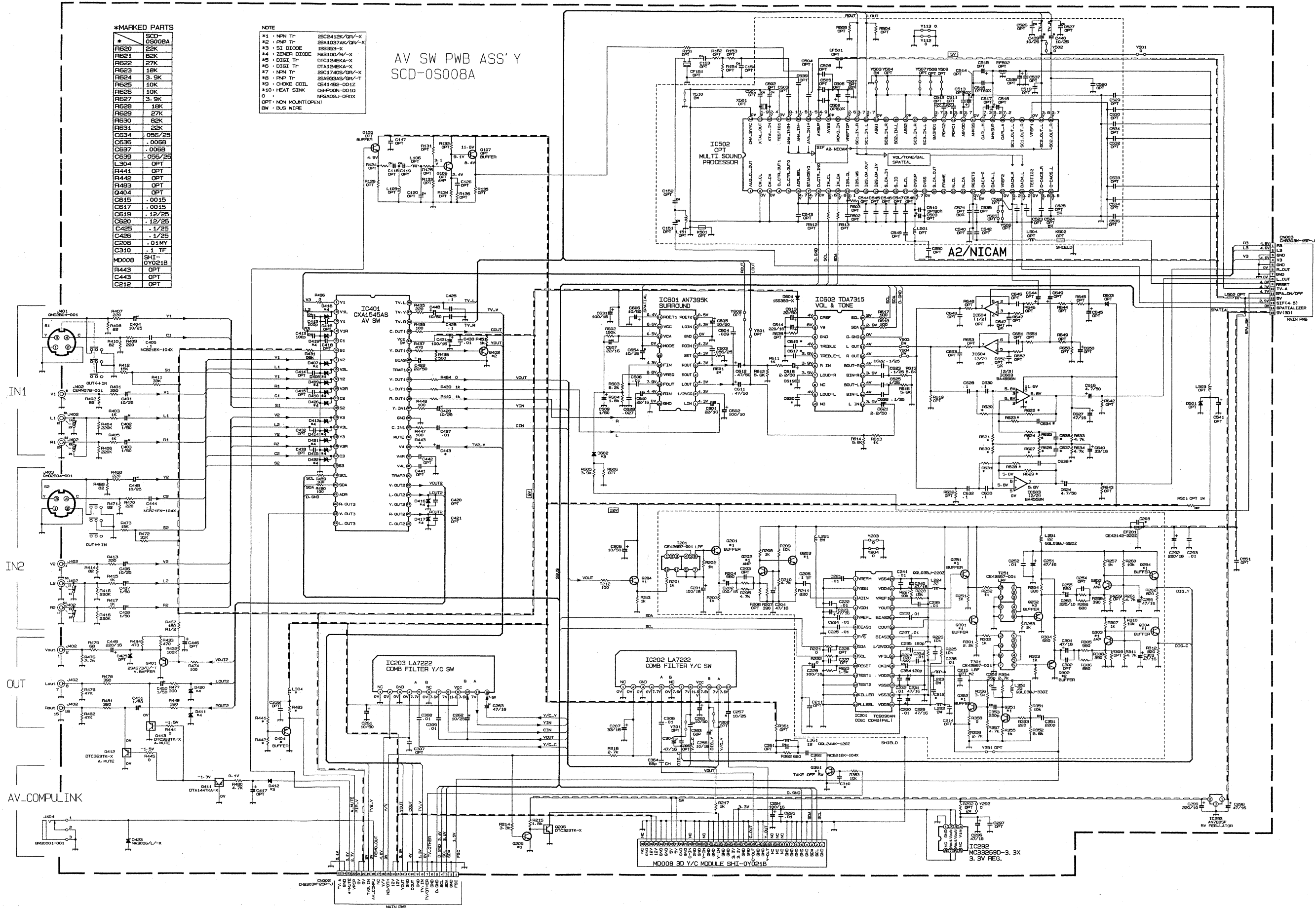
JVC
VICTOR COMPANY OF JAPAN, LIMITED

The diagram illustrates the internal circuitry of a television receiver, organized into several main sections:

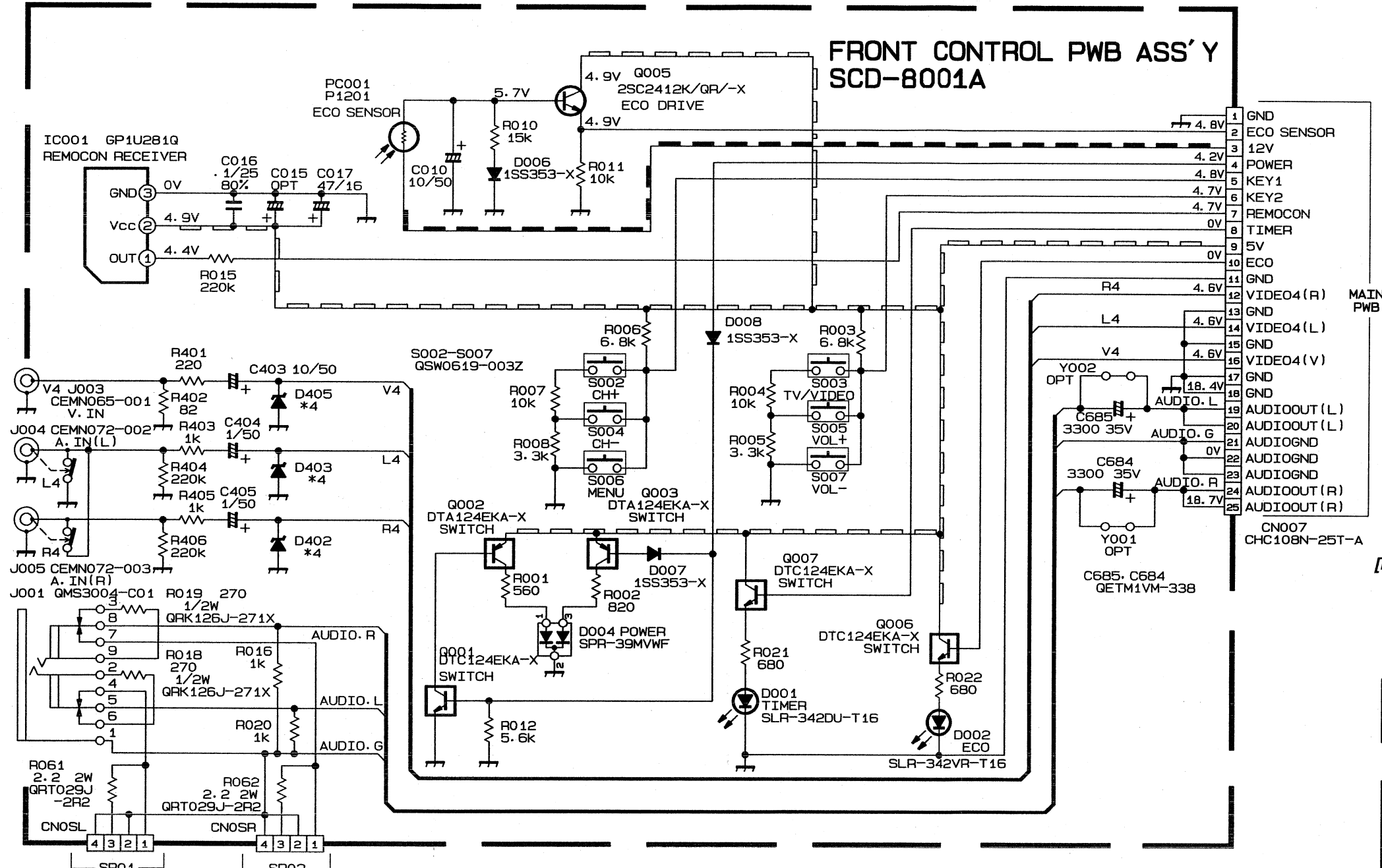
- SUB TU/IF PWB:** Contains the initial tuning and intermediate frequency stages, including TU001, Q051 AMP, SF051, IC051 P.I.F DET, and various capacitors (CF053, CF056, CF054, CF055).
- IF PWB:** The intermediate frequency section featuring IC101 PIF/SIF DET, SF101, SF102, Q101 IF AMP, and a series of traps (CF103, CF106, CF601, CF604, CF606, CF608) and capacitors (CF104, CF105).
- AV SW PWB:** The audio-visual switch section with IC401 AV SW, Q101 SIF AMP, SF101 SF102, IC101 PIF/SIF SELECTOR, and various capacitors (CF056, CF054, CF055).
- MAIN PWB:** The central processing section containing IC701 MICRO COMPUTER, IC702 MEMORY, IC601 SURROUND, IC602 VOL & TONE, IC603, 3D Y/C MODULE, 3D Y/C SEP, IC201 DIGI COMB, T251 LPF, T301 LPF, IC202 COMB FILTER Y/C SW, IC203, and various capacitors (CF056, CF054, CF055).
- LF&POWER PWB:** The low-frequency and power section, including the POWER SUPPLY CIRCUIT, IC701 MICRO COMPUTER, and various capacitors (CF056, CF054, CF055).
- FRONT CONTROL PWB:** The front control section with IC681 POWER AMP, Q101 IF AMP, Q102 Q103 COMP, and various capacitors (CF056, CF054, CF055).
- CRT SOCKET PWB:** The CRT socket section, including V01 CRT, RGB DRV, and V M.
- TELE TEXT PWB:** The teletext section, including IC001 DATA SLICER, IC002 TEXT DEC, and various capacitors (CF056, CF054, CF055).

The diagram shows the flow of signals from video inputs through various amplifiers, filters, and processors to the final output stages including speakers, a CRT, and a flyback transformer.

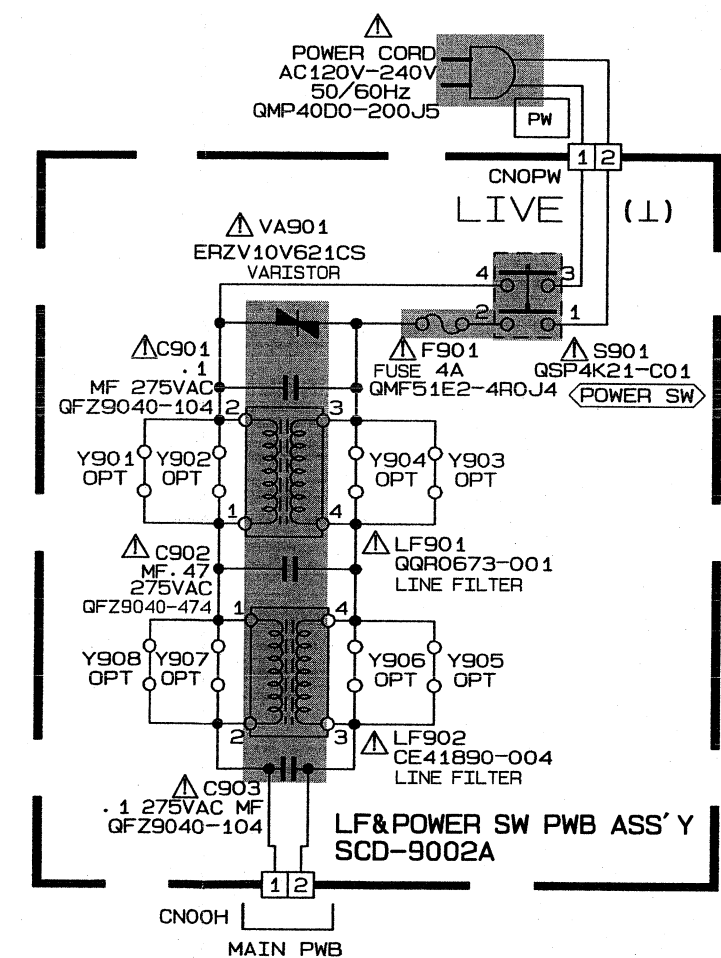
CIRCUIT DIAGRAMS [AV SW PWB (With 3D Y/C MODULE CIRCUIT DIAGRAMS)]



[FRONT CONTROL PWB CIRCUIT DIAGRAM]



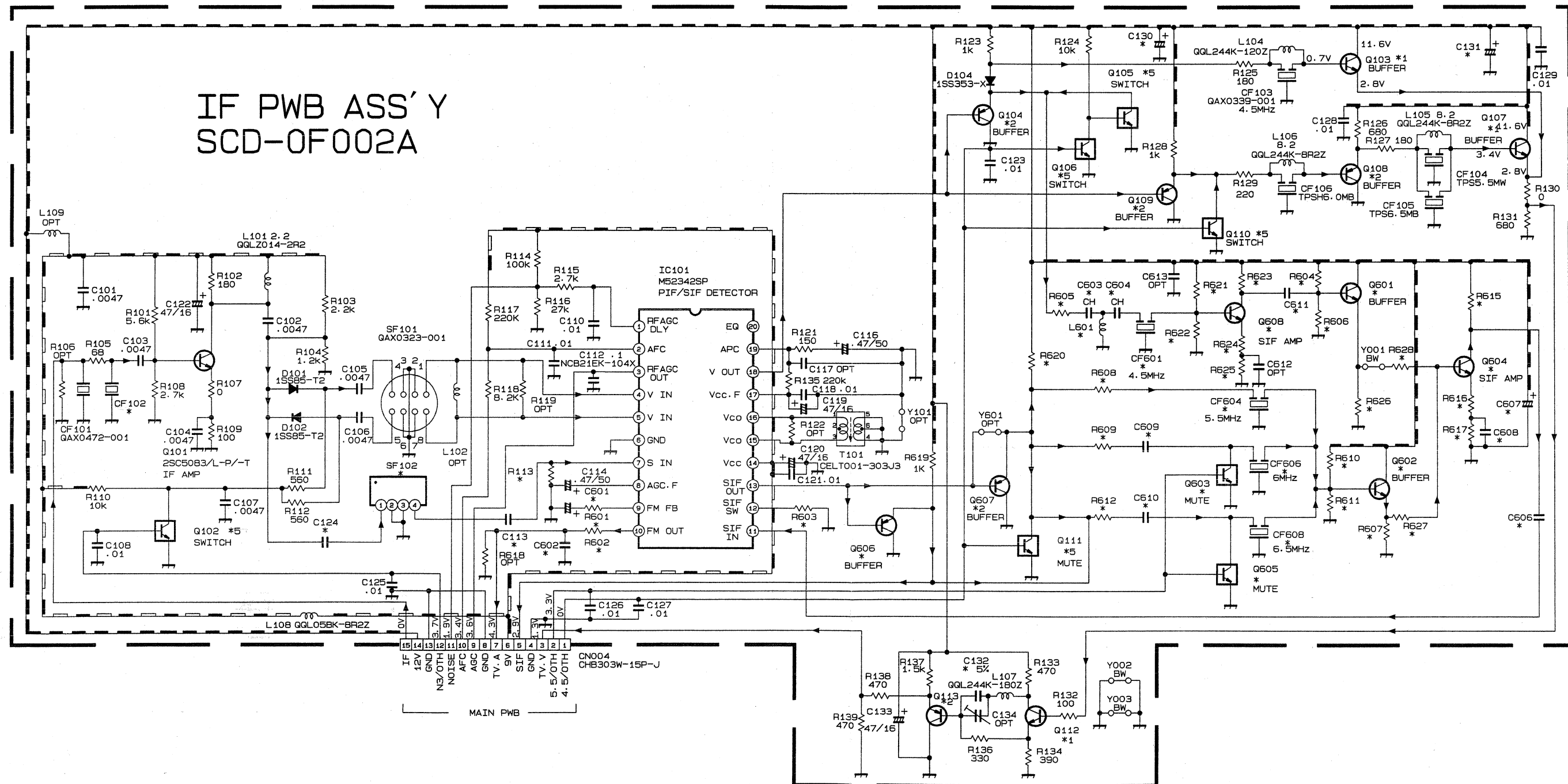
[LF & POWER SW PWB CIRCUIT DIAGRAM]



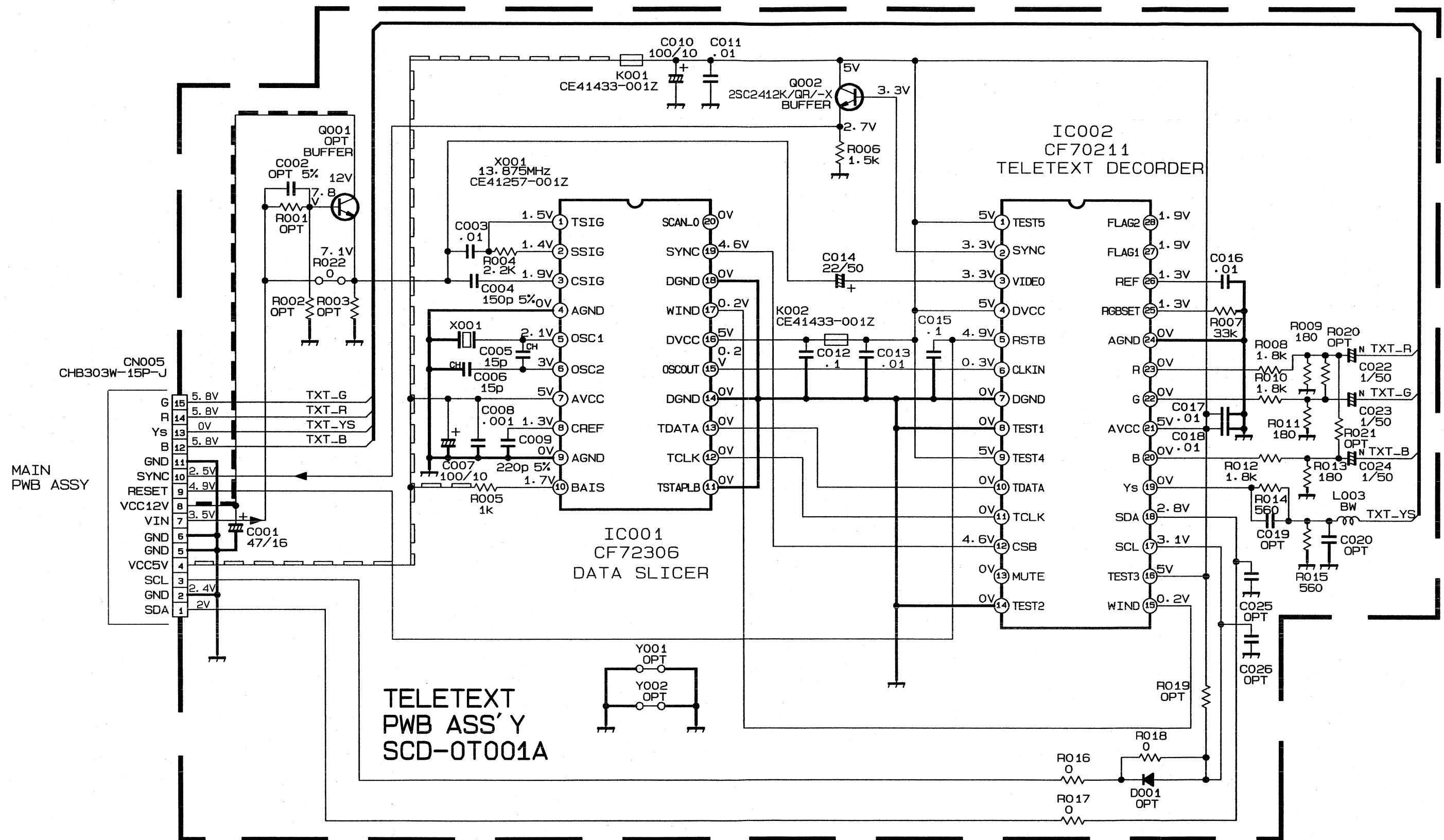
[IF PWB CIRCUIT DIAGRAM]

*MARKED PARTS

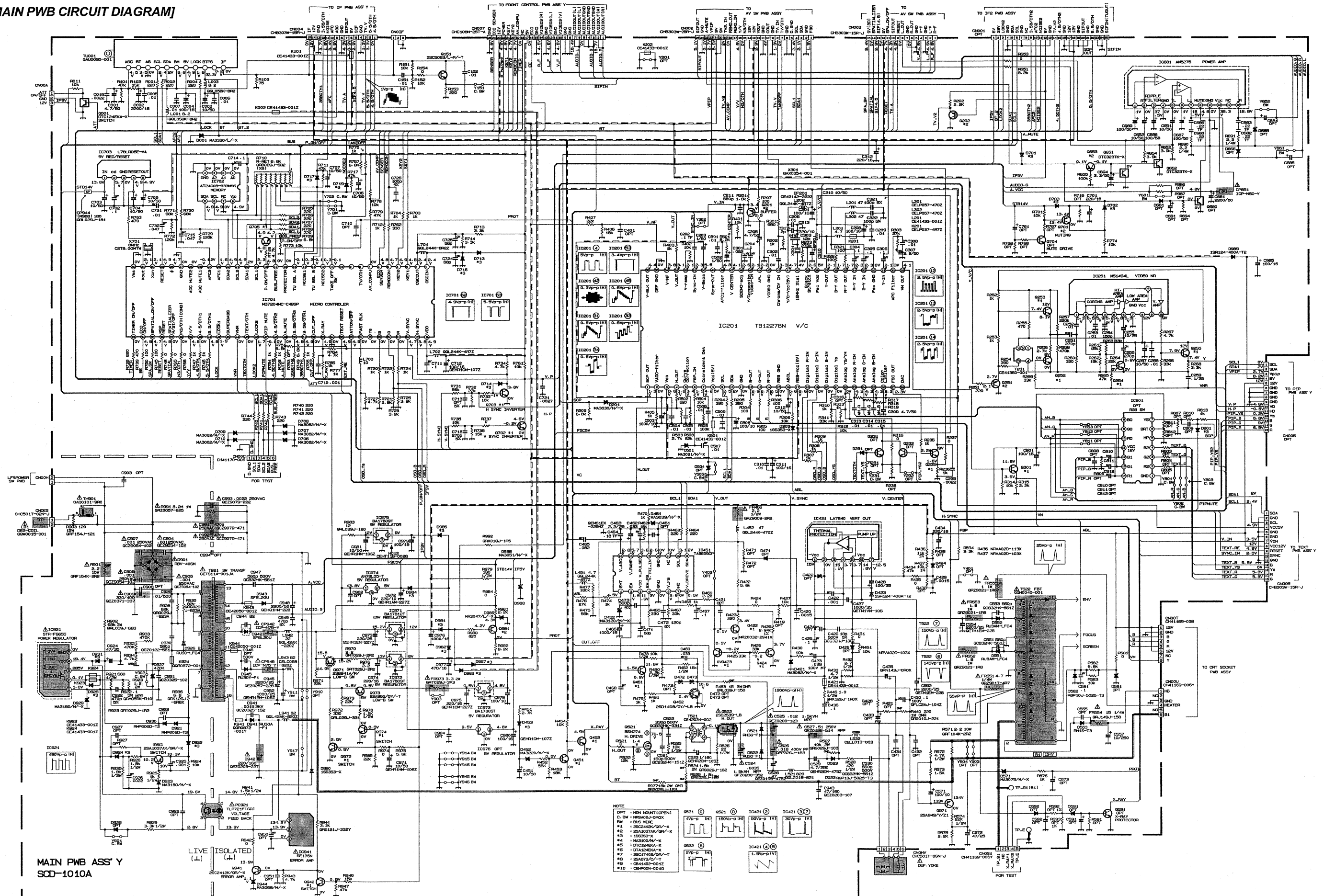
	SCD-OF002A		SCD-OF002A		SCD-OF002A		SCD-OF002A
C113	.01	CF601	SFSH4.5	R601	2.2K	R621	39K
C124	.01	CF602	MCB	R602	3.3K	R622	10K
CF102	QAX0358-001	CF604	QAX0336-001	R603	10K	R623	390
Q111	*5	CF606	QAX0337-001	R604	2.2K	R624	100
R113	OPT	CF608	QAX0338-001	R605	220	R625	560
SF102	QAX0325-001	L601	QGL244K-120Z	R606	1.5K	R626	1.8K
C601	10/50			R607	1.8K	R627	560
C602	.022	Q601	*1	R608	560	R628	560
C603	47P	Q602	*1	R609	470	C130	100/16
C604	47P	Q603	*5	R610	2.2K	C131	100/16
C605	.01	Q604	*1	R611	1.5K		
C606	100/16	Q605	*5	R612	470		
C607	.01	Q606	OPT	R615	180		
C608	.01	Q608	*1	R616	22		
C609	.01	C132	220P	R617	820		
C610	.01	L107	QGL244K-180Z	R619	OPT		
C611	.01			R620	1K		
C612	.01						

IF PWB ASS'Y
SCD-OF002A

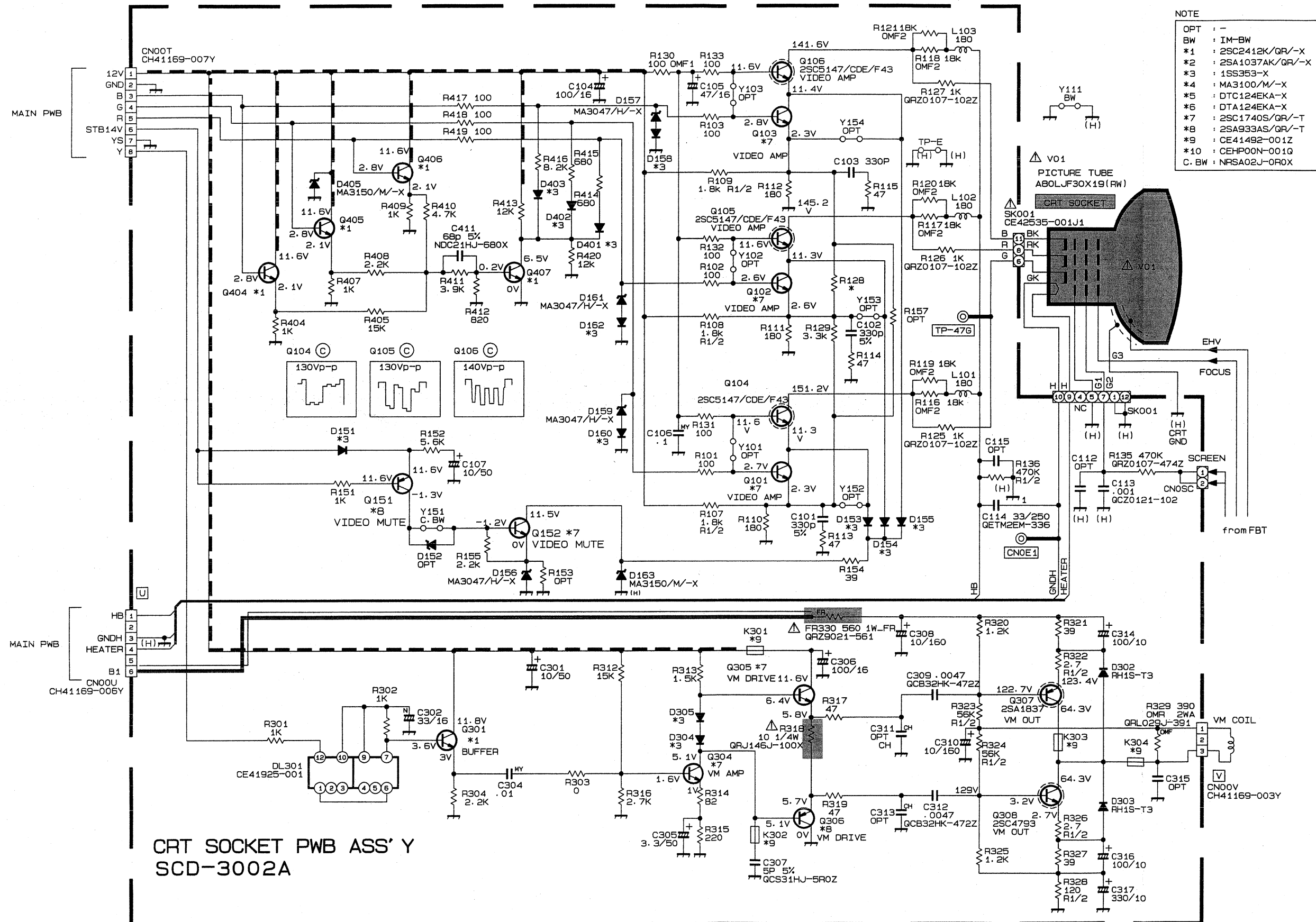
[TELETEXT PWB CIRCUIT DIAGRAM]



[MAIN PWB CIRCUIT DIAGRAM]

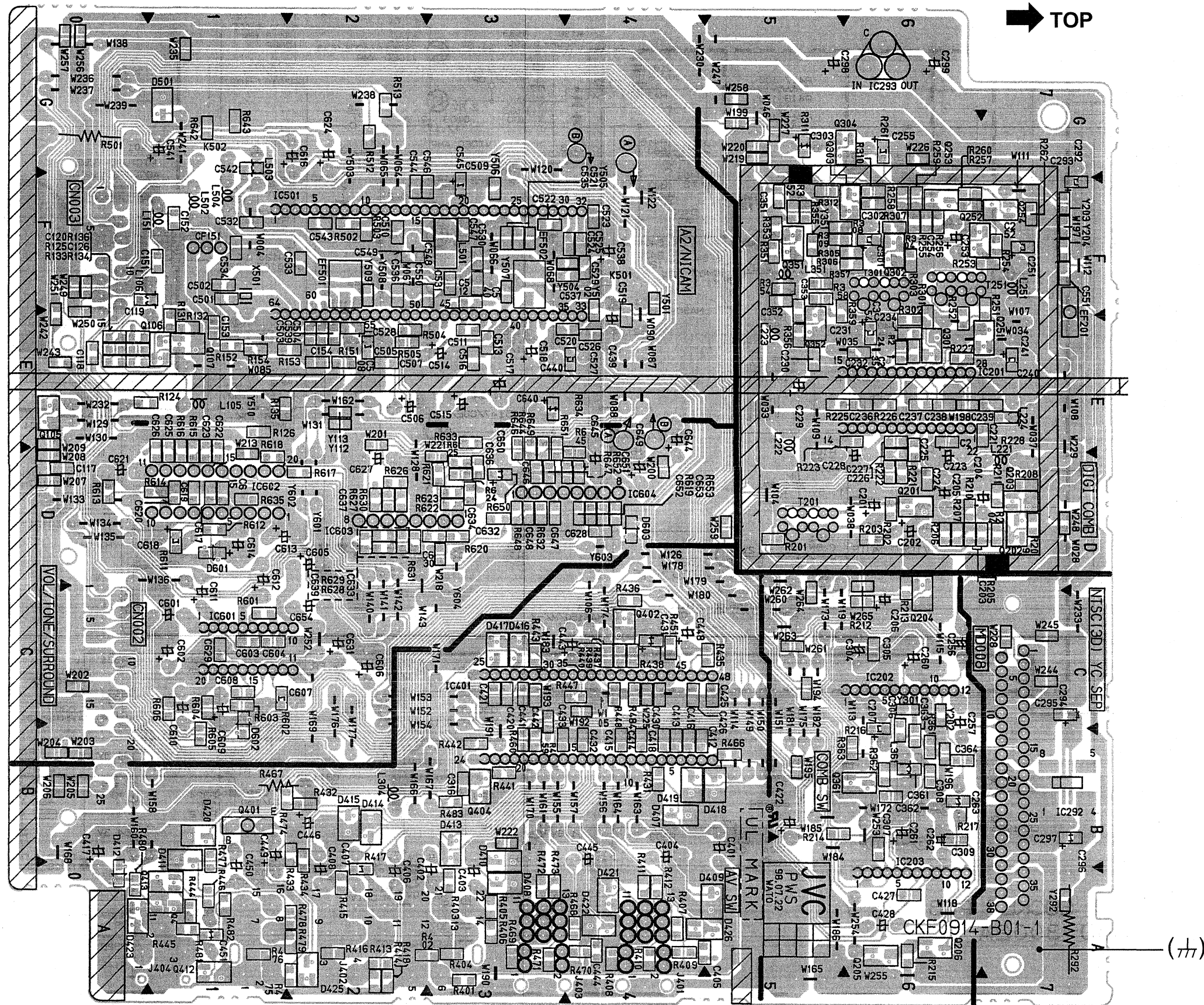


[CRT SOCKET PWB CIRCUIT DIAGRAM]

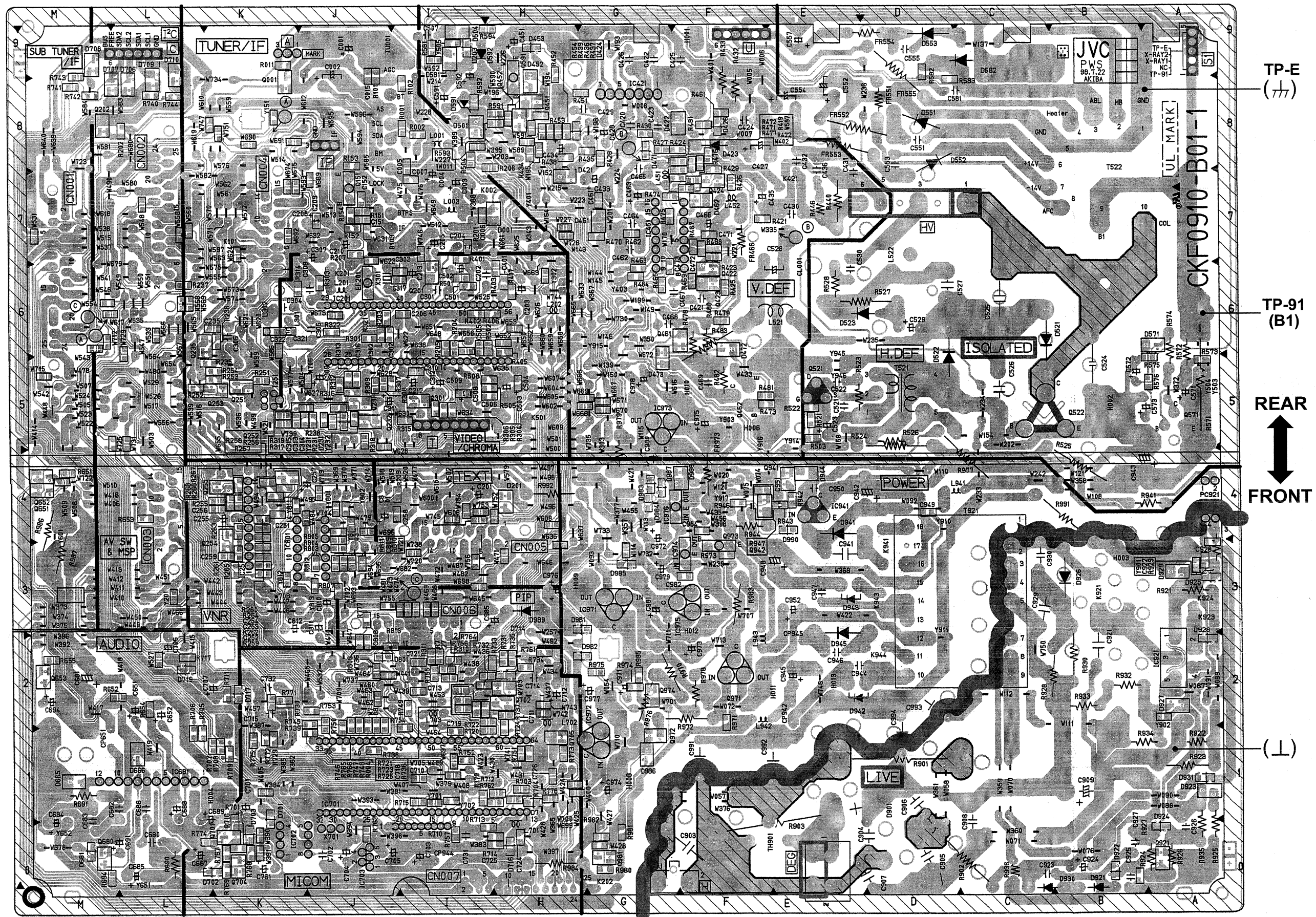


PATTERN DIAGRAMS

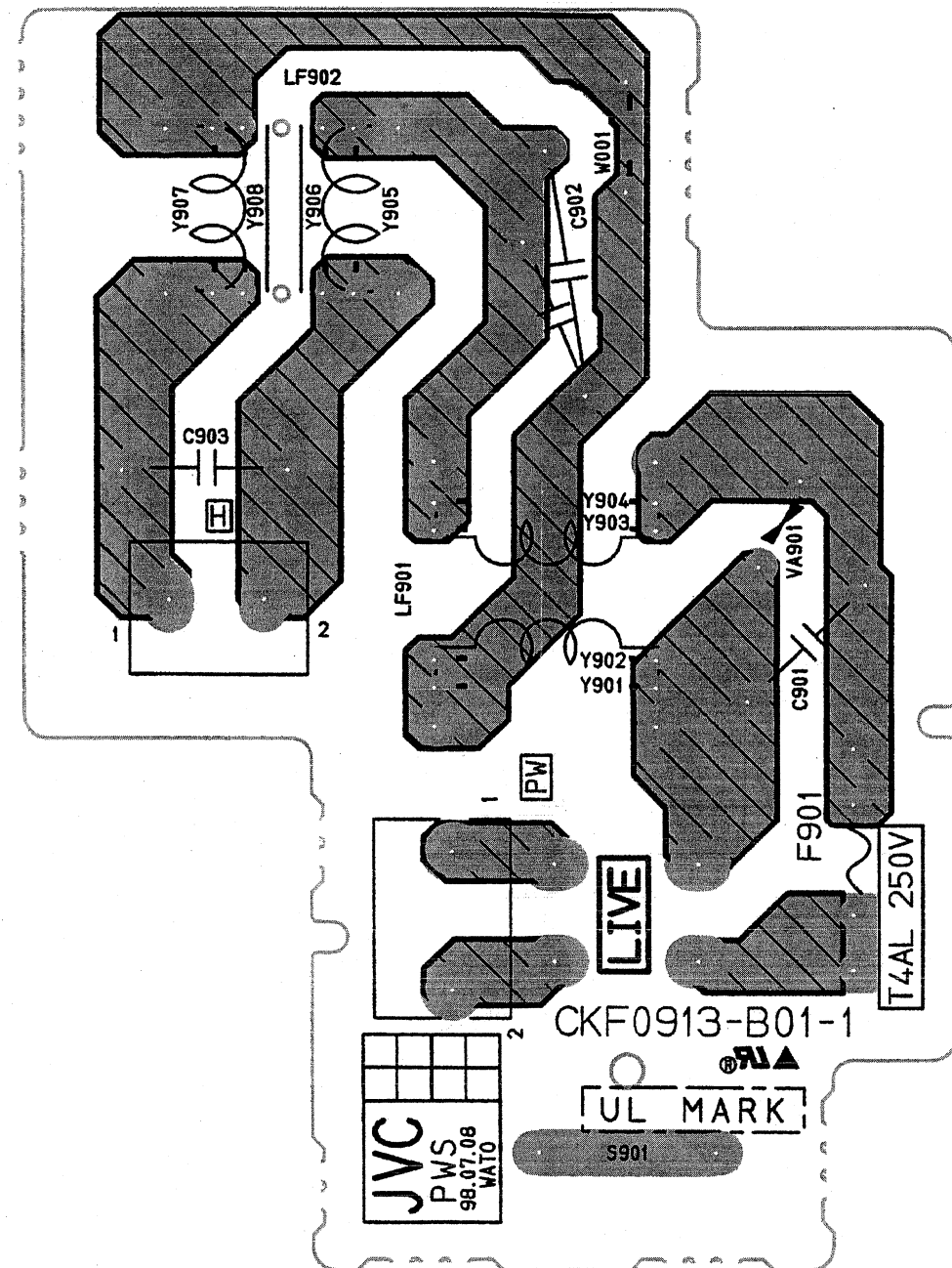
[AV SW PWB PATTERN]



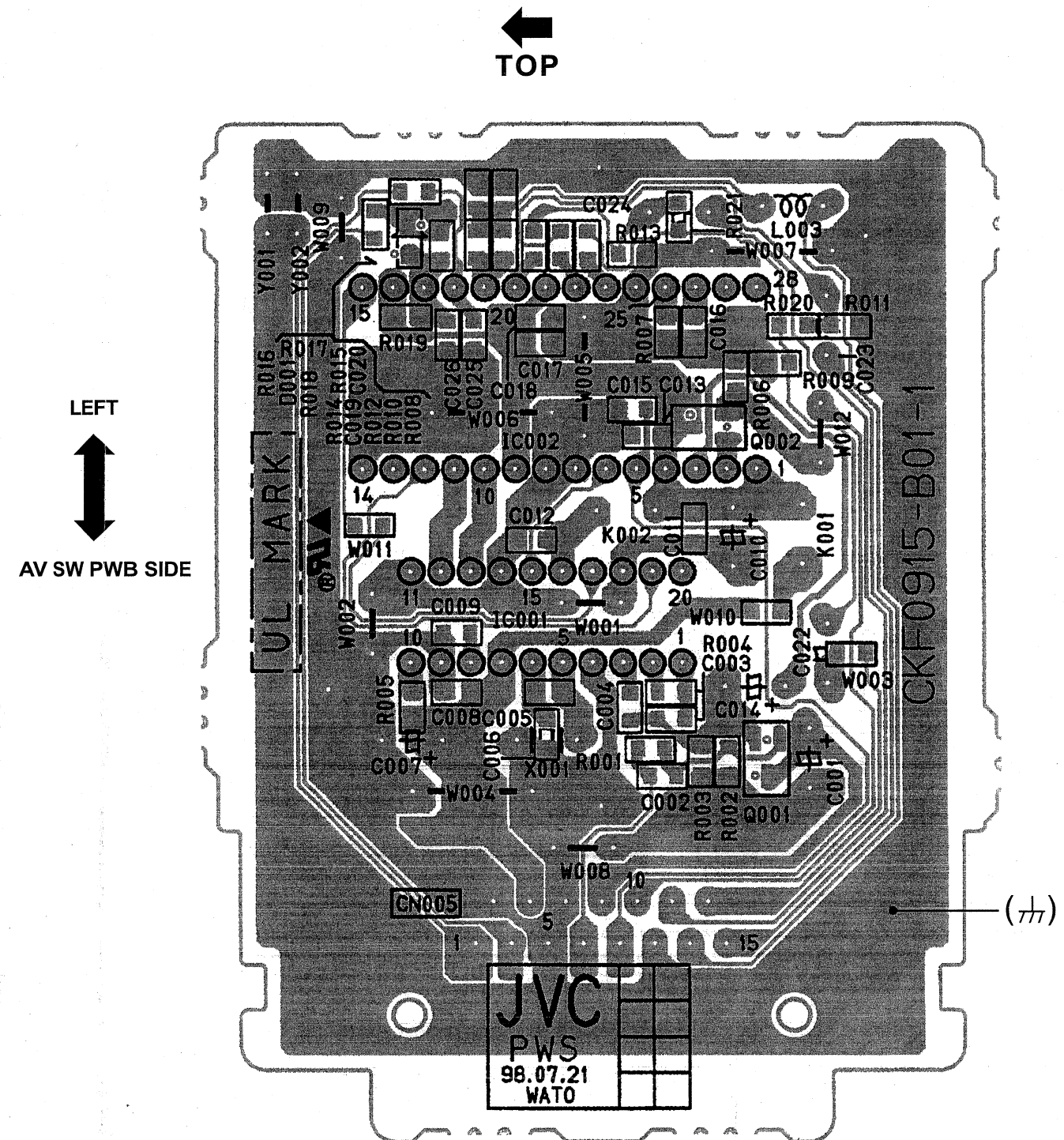
[MAIN PWB PATTERN]



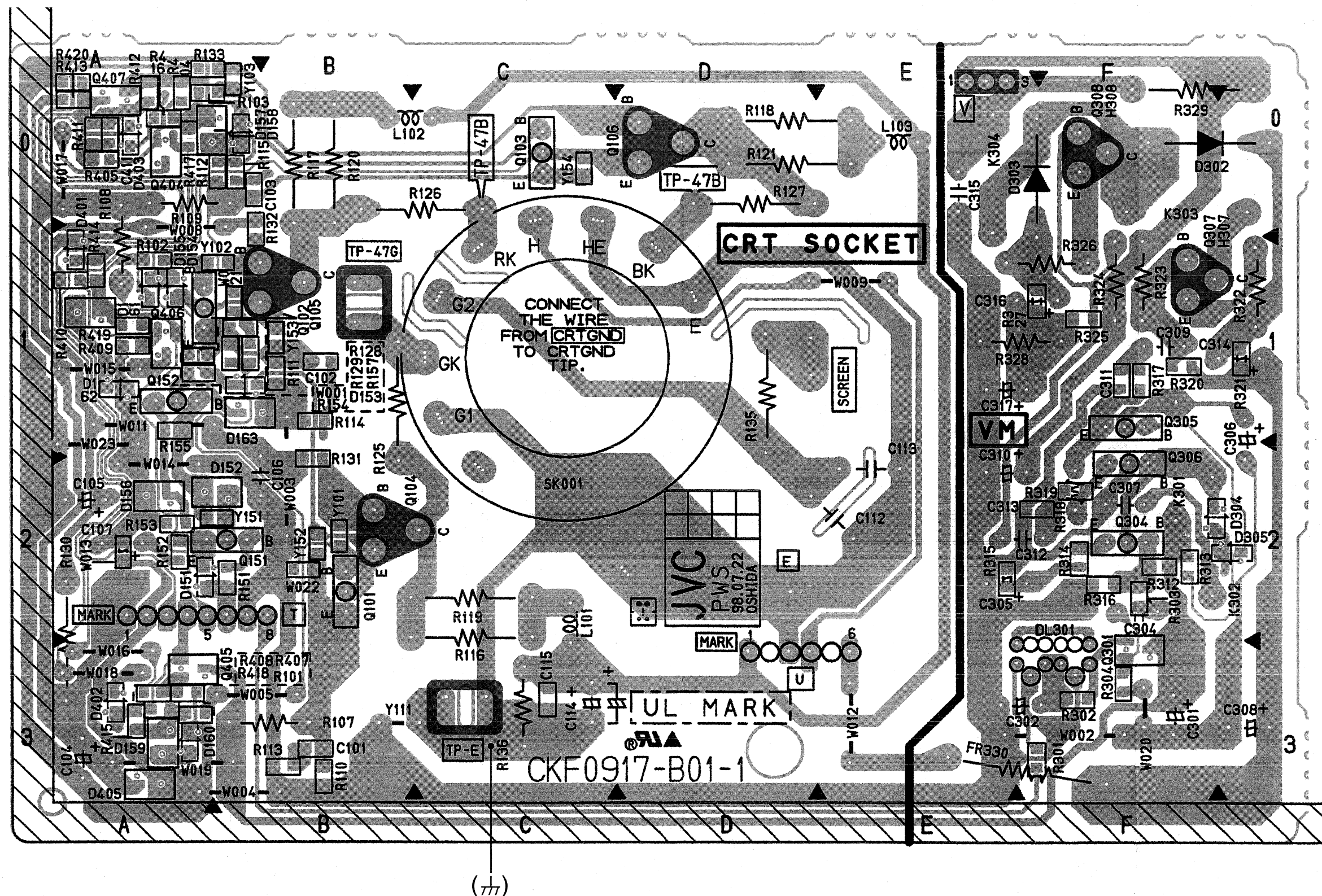
[LF & POWER SW PWB PATTERN]



[TELETEXT PWB PATTERN]

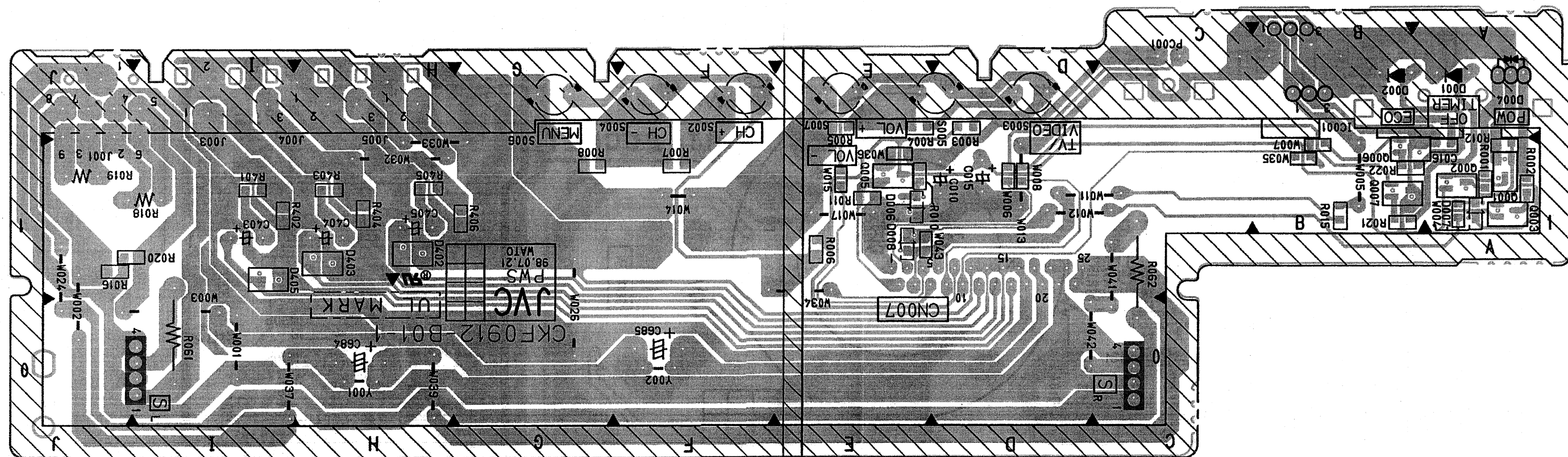


↑ TOP



[FRONT CONTROL PWB PATTERN]

↑ FRONT



SAFETY PRECAUTIONS

1. The design of this product contains special hardware, many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the products should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the parts list of Service manual. **Electrical components having such features are identified by shading on the schematics and by (Δ) on the parts list in Service manual.** The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the parts list of Service manual may cause shock, fire, or other hazards.
4. **Don't short between the LIVE side ground and ISOLATED (NEUTRAL) side ground or EARTH side ground when repairing.**
Some model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : (⊥) side GND, the ISOLATED(NEUTRAL) : (⊥) side GND and EARTH : (⊕) side GND. Don't short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or EARTH side GND and never measure with a measuring apparatus (oscilloscope etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND or EARTH side GND at the same time.
If above note will not be kept, a fuse or any parts will be broken.
5. If any repair has been made to the chassis, it is recommended that the B1 setting should be checked or adjusted (See ADJUSTMENT OF B1 POWER SUPPLY).
6. The high voltage applied to the picture tube must conform with that specified in Service manual. Excessive high voltage can cause an increase in X-Ray emission, arcing and possible component damage, therefore operation under excessive high voltage conditions should be kept to a minimum, or should be prevented. If severe arcing occurs, remove the AC power immediately and determine the cause by visual inspection (incorrect installation, cracked or melted high voltage harness, poor soldering, etc.). To maintain the proper minimum level of soft X-Ray emission, components in the high voltage circuitry including the picture tube must be the exact replacements or alternatives approved by the manufacturer of the complete product.
7. Do not check high voltage by drawing an arc. Use a high voltage meter or a high voltage probe with a VTVM. Discharge the picture tube before attempting meter connection, by connecting a clip lead to the ground frame and connecting the other end of the lead through a 10kΩ 2W resistor to the anode button.
8. When service is required, observe the original lead dress. Extra precaution should be given to assure correct lead dress in the high voltage circuit area. Where a short circuit has occurred, those components that indicate evidence of overheating should be replaced. Always use the manufacturer's replacement components.

9. Isolation Check

(Safety for Electrical Shock Hazard)

After re-assembling the product, always perform an isolation check on the exposed metal parts of the cabinet (antenna terminals, video/audio input and output terminals, Control knobs, metal cabinet, screwheads, earphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.

(1) Dielectric Strength Test

The isolation between the AC primary circuit and all metal parts exposed to the user, particularly any exposed metal part having a return path to the chassis should withstand a voltage of 3000V AC (r.m.s.) for a period of one second.

(... Withstand a voltage of 1100V AC (r.m.s.) to an appliance rated up to 120V, and 3000V AC (r.m.s.) to an appliance rated 200V or more, for a period of one second.)

This method of test requires a test equipment not generally found in the service trade.

(2) Leakage Current Check

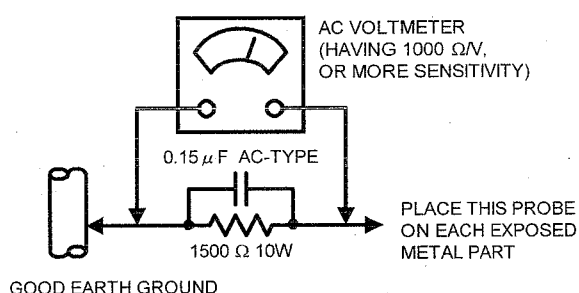
Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground (water pipe, etc.). Any leakage current must not exceed 0.5mA AC (r.m.s.).

However, in tropical area, this must not exceed 0.2mA AC (r.m.s.).

● Alternate Check Method

Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Use an AC voltmeter having 1000 ohms per volt or more sensitivity in the following manner. Connect a 1500Ω 10W resistor paralleled by a 0.15μF AC-type capacitor between an exposed metal part and a known good earth ground (water pipe, etc.). Measure the AC voltage across the resistor with the AC voltmeter. Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75V AC (r.m.s.). This corresponds to 0.5mA AC (r.m.s.).

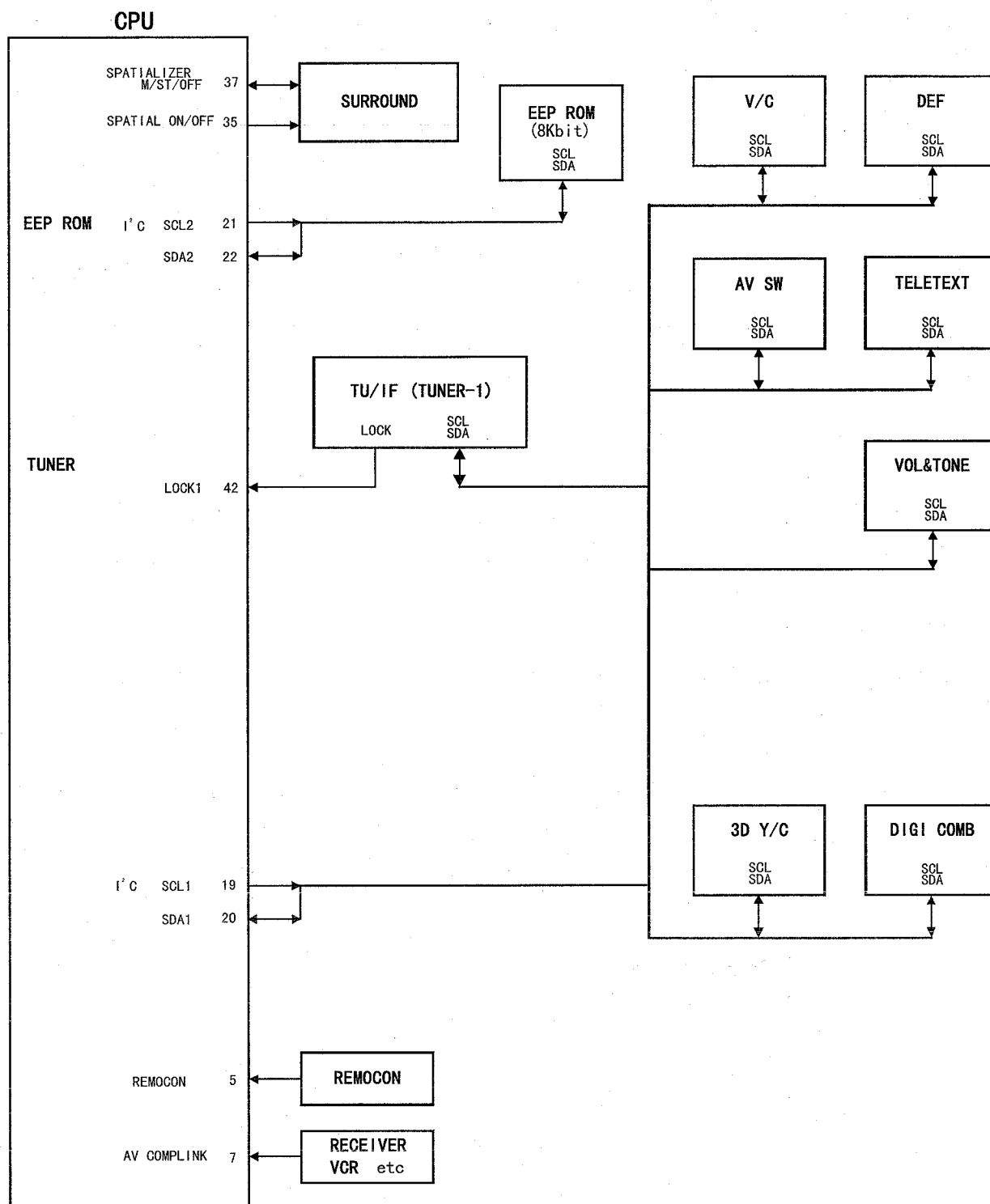
However, in tropical area, this must not exceed 0.3V AC (r.m.s.). This corresponds to 0.2mA AC (r.m.s.).



FEATURES

- New chassis design enables use of an interactive on-screen control.
- Wide range voltage (90V~260V) AC power input.
- With AUDIO / VIDEO INPUT & OUTPUT terminal / S-VIDEO INPUT terminal.
- MUTING button can reduce the audio level to zero instantly.
- Functional remote control to operate TV set (for channel select, volume control, power ON/OFF, etc.) from a distance.
- I²C bus control utilizes single chip ICs for IF, V/C and VSM.
- By means of AUTO CH PRESET, the TV stations can be selected automatically and the TV channels can also be rearranged automatically.
- Built-in ECO MODE (ECONOMY, ECOLOGY)
In accordance with the brightness in a room, the brightness and / of contrast of the picture can be adjusted automatically to make the optimum picture which is easy on the eye.
- Built-in ON TIMER, RETURN +.

■ SYSTEM BLOCK DIAGRAM



SPECIFIC SERVICE INSTRUCTIONS

REMOVING THE REAR COVER

1. Unplug the power supply cord.
2. Remove the **15** screws marked (A) as shown in figure.
3. Withdraw the rear cover toward you.

REMOVING THE CHASSIS

- After removing the rear cover.
1. Slightly raise the both sides of the chassis by hand and remove the **2** claws under the both sides of the chassis from the front cabinet.
 2. Withdraw the chassis backward.
(If necessary, take off the wire clamp, connectors etc.)

REMOVING THE AV TERMINAL BOARD

- After removing the rear cover.
1. Remove the **4** screws marked (B) as shown in figure.
 2. While pushing the claw marked (D), remove the AV TERMINAL board slightly in the direction of arrow (E) as shown in Fig.1.

REMOVING THE CONTROL BASE

- After removing the rear cover & the chassis.
1. While pushing down the claws marked (F), remove the CONTROL BASE in the arrow direction marked (G) as shown in Fig. 2.
(If necessary, take off the wire clamp, connectors etc.)

REMOVING THE DOME SPEAKER BOX(OPEN TYPE)

- After removing the rear cover.
1. Remove the **2** screws marked (H) as shown in figure.
 2. Follow the same steps when removing the other hand dome speaker box.

Note

- When removing the screws marked (H) of the dome speaker box, remove the lower side screw first, and then remove the upper screw.

CHECKING THE PW BOARD

1. To check the back side of the PW Board.
 - 1) Pull out the chassis. (Refer to REMOVING THE CHASSIS)
 - 2) Erect the chassis vertically so that you can easily check the back side of the PW Board.

[CAUTION]

- When erecting the chassis, be careful so that there will be no contacting with other PW Board.
- Before turning on power, make sure that the wire connector is properly connected.
- When repair service, connect Deg. coil to **DEG.** Connector on MAIN PW Board.

WIRE CLAMPING AND CABLE TYING

1. Be sure to clamp the wire.
2. Never remove the cable tie used for tying the wires together.
Should it be inadvertently removed, be sure to tie the wires with a new cable tie.

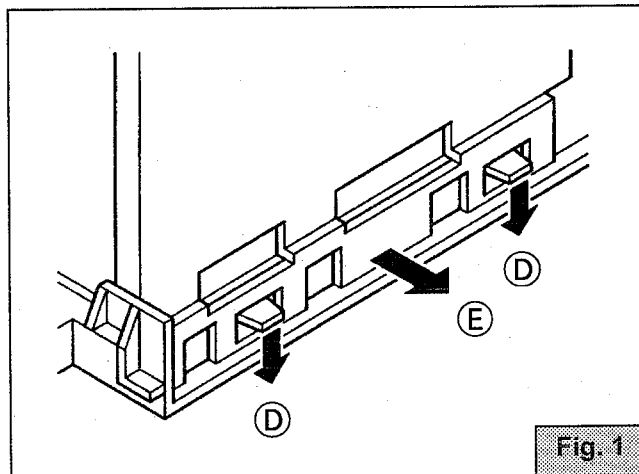


Fig. 1

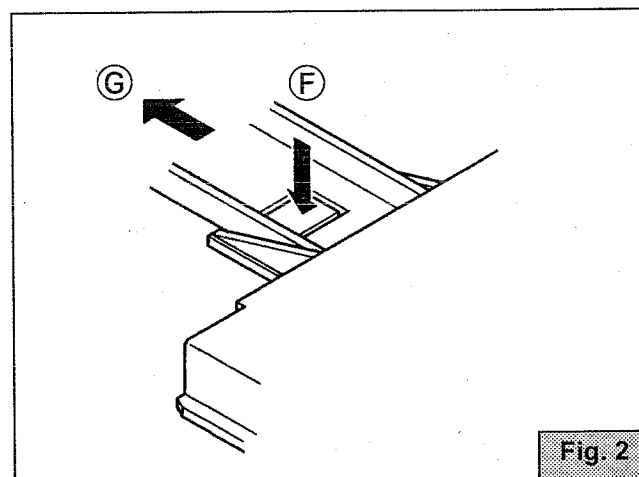
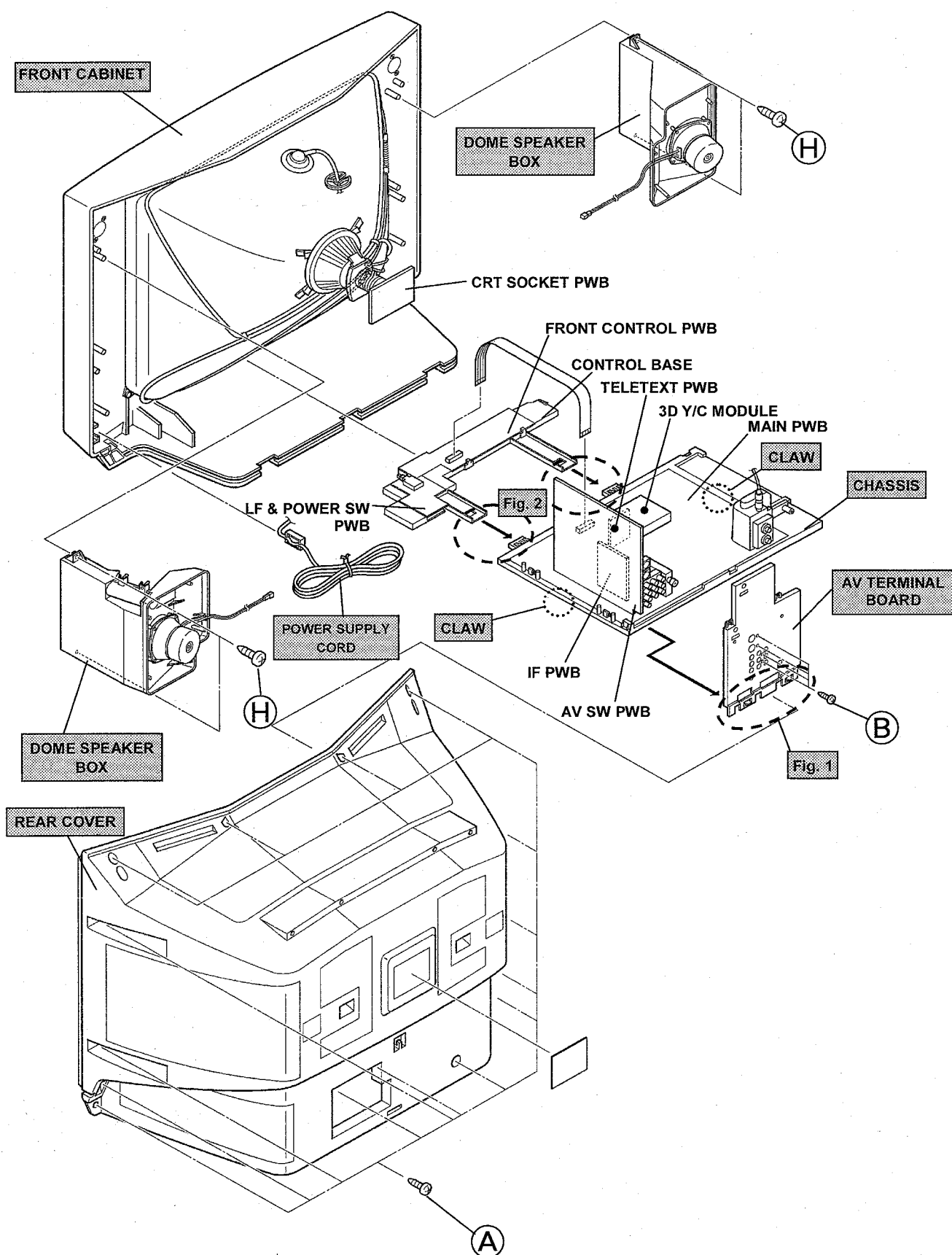


Fig. 2



REMOVING THE CRT

- * Replacement of the CRT (PICTURE TUBE) should be performed by 2 or more persons.
- After removing the rear cover, chassis etc...
- 1. Putting the CRT change table on soft cloth, the CRT change table should also be covered with such soft cloth (shown in Fig.4).
- 2. While keeping the surface of CRT down, mount the TV set on the CRT change table balanced will as shown in Fig.5.
- 3. Remove 4 screws marked by arrows with a box type screw driver as shown in Fig.5.
- Since the cabinet will drop when screws have been removed, be sure to support the cabinet with hands.
- 4. After 4 screws have been removed, put the cabinet slowly on cloth (At this time, be carefully so as not to damage the front surface of the cabinet) shown in Fig.6.
- The CRT should be assembled according to the opposite sequence of its dismantling steps.
- * The CRT change table should preferably be smaller than the CRT surface, and its height be about 35cm.

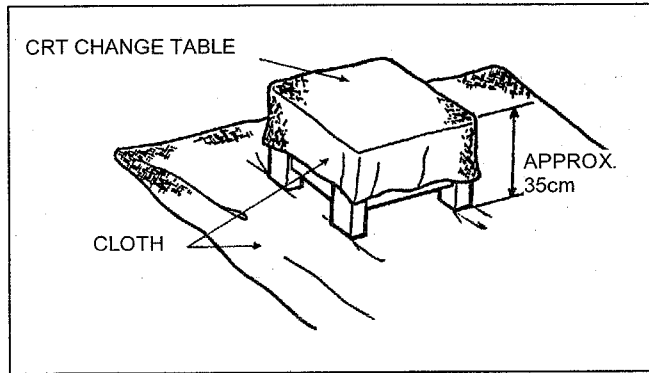


Fig. 4

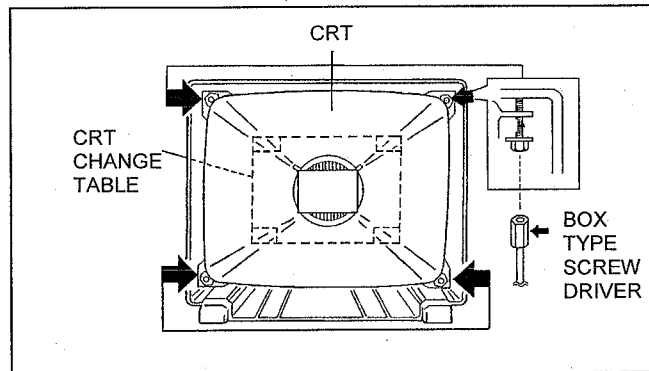


Fig. 5

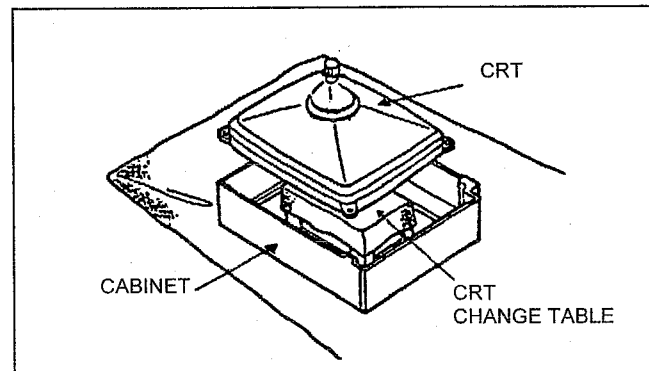


Fig. 6

COATING THE SILICON GREASE.

- Subsequent to replacement of the CRT and HV transformer or repair of the anode cap, etc. by dismantling them, be sure to coat silicon grease for electrical insulation as shown in Fig.7. Wipe around the anode button with clean and dry cloth. (Fig.7) Coat silicon grease on the section around the anode button. At this time, take care so that any silicon greases dose not stick to the anode button. (Fig.8)

★ Silicon grease product No. KS - 650N

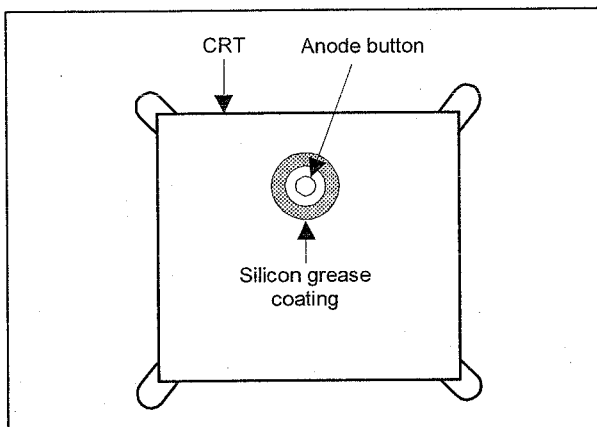


Fig. 7

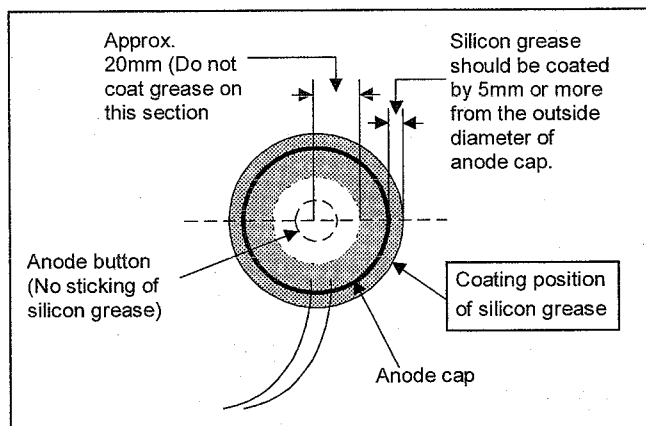


Fig. 8

REPLACEMENT OF MEMORY ICs

1. MEMORY ICs

This TV uses memory ICs. In the memory ICs are memorized data for correctly operating the video and deflection circuits. When replacing memory ICs, be sure to use ICs written with the initial values of data.

2. PROCEDURE FOR REPLACING MEMORY ICs

(1) Power off

Switch the power off and unplug the power cord from the wall outlet.

(2) Replace ICs

Be sure to use memory ICs written with the initial data values.

(3) Power on

Plug the power cord into the wall outlet and switch the power on.

(4) Check and set SYSTEM CONSTANT SET:

★ It must not adjust without signal.

- 1) Press the DISPLAY key and the PICTURE MODE key of the REMOTE CONTROL UNIT simultaneously.
- 2) The SERVICE MENU screen of Fig. 1 will be displayed.
- 3) While the SERVICE MENU on display, press the DISPLAY key and PICTURE MODE key simultaneously, and the SYSTEM CONSTANT SET screen of Fig. 2 will be displayed
- 4) Check the setting value of the SYSTEM CONSTANT SET of Table 1. If the value is different, select the setting item with the MENU ∇/Δ key, and set the correct value with the MENU -/+ key.
- 5) Press the DISPLAY key twice, and return to the normal screen.

(5) Receive channel of setting

Refer to the **OPERATING INSTRUCTIONS** and set the receive channels (channels preset) as described.

(6) User Setting

Check the user setting value of Table 2, and if setting value is different, set the correct value.
For setting, refer to the **OPERATING INSTRUCTIONS**.

(7) Setting of SERVICE MENU

Verify the setting items of the SERVICE MENU of Table 3, and reset where necessary.
For setting, refer to the **SERVICE ADJUSTMENTS**.

SERVICE MENU

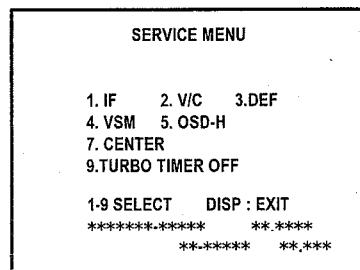
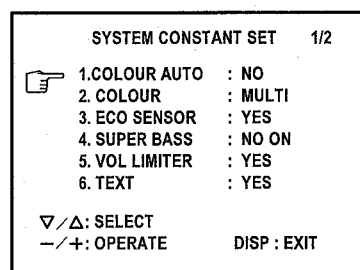


Fig. 1

SYSTEM CONSTANT- I



SYSTEM CONSTANT- II

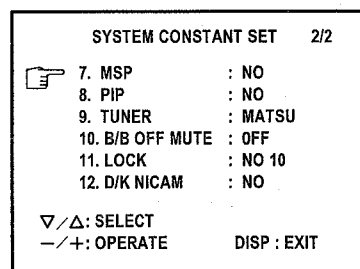
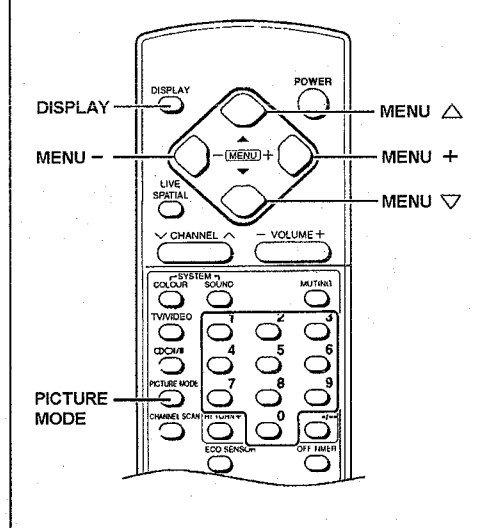


Fig. 2

REMOTE CONTROL KEY



SETTING OF SYSTEM CONSTANT SET

Setting item	Setting content	Setting value
1. COLOUR AUTO	▶ YES → NO	NO
2. COLOUR	▶ MULTI → TRIPLE → PAL	MULTI
3. ECO SENSOR	▶ YES → NO	YES
4. SUPER BASS	▶ YES → NO-ON → NO-OFF	NO ON
5. VOL LIMITER	▶ YES → NO	YES
6. TEXT	▶ YES → NO	YES
7. MSP	▶ YES → NO	YES
8. PIP	▶ YES → NO	YES
9. TUNER	▶ MATSU → ALPS → MURATA	MATSU
10. B / B OFF MUTE	▶ YES → NO	OFF
11. LOCK	▶ YES → NO 0 → NO 10 → NO250	NO 10
12. D/K NICAM	▶ YES → NO	NO

Table 1

USER SETTING VALUES

Setting item	Setting value	Setting item	Setting value
SUB POWER	ON	VNR (NOTCH)	OFF
CHANNEL	1 POSITION	OFF TIMER	OFF
CHANNEL PRESET	Refer to OPERATING INSTRUCTION	TREBLE/BASS/BALANCE	CENTER
VOLUME	Appropriate sound volume	PICTURE MODE (VSM)	BRIGHT
TV / VIDEO	TV	ECO SENSOR	OFF
ON SCREEN DISPLAY	POSITION NUMBER DISPLAY	SUPER BASS	ON
COLOUR SYSTEM	PAL	AUTO SHUTOFF	OFF
SOUND SYSTEM	B / G	BLUE BACK	ON
SURROUND	OFF	ON TIMER	PR1 0:00
		COLOUR/BRIGHT/CONT/SHARP	CENTER

Table 2

SERVICE MENU SETTING ITEMS

Service menu	Setting item	Service menu	Setting item
1. IF	1. VCO 2. DELAY POINT	3. DEF.	1. TRAPEZ 2. V-SHIFT 3. V-SIZE 4. H-CENT 5. H-SIZE 6. EW-PIN 7. V.S-CR 8. V-EDGE 9. EW-COR 10. V-LIN. 11. H-COMP. Do not adjust
2. V/C	1. CUTOFF _(R/G/B) 2. DRIVE _(R/B) 3. BRIGHT 4. CONT. 5. COLOUR _(PAL/SECAM/N3/N4) 6. TINT _(N3/N3-V/N4/N4-V) 7. BLACK OFFSET _(R-Y/B-Y) 8. SHARP _(TV / VIDEO) 9. TEXT _(RGB) CONT 10. B.S.OFF 11. B.S.POINT 12. DC TRAN RATE 13. APA-CON FO/SW 14. VSM PHASE 15. VSM GAIN 16. CLL SW 17. CLL LEVEL 18. ABL POINT 19. ABL GAIN 20. Y-DL _(TV/VIDEO/S/PAL/SECAM/N3/N4) 21. P.ACL SW 22. WPL SW 23. Y GAMMA 24. V. ENHANCE 25. 3D Y/C	4. VSM-PRESET (BRIGHT/STD/SOFT)	TINT COLOUR BRIGHT CONT. SHARP
		5. OSD-H (Do not adjust)	OSD-H 0~OSD-H16
		7. CENTER (Do not adjust)	TREBLE BASS
		9. TURBO TIMER	ON or OFF

Table 3

REPLACEMENT OF CHIP COMPONENT

■ CAUTIONS

1. Avoid heating for more than 3 seconds.
2. Do not rub the electrodes and the resist parts of the pattern.
3. When removing a chip part, melt the solder adequately.
4. Do not reuse a chip part after removing it.

■ SOLDERING IRON

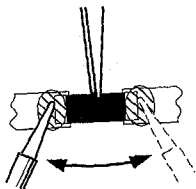
1. Use a high insulation soldering iron with a thin pointed end of it.
2. A 30w soldering iron is recommended for easily removing parts.

■ REPLACEMENT STEPS

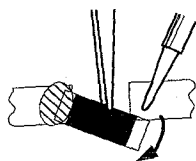
1. How to remove Chip parts

◆ Resistors, capacitors, etc.

- (1) As shown in the figure, push the part with tweezers and alternately melt the solder at each end.



- (2) Shift with tweezers and remove the chip part.

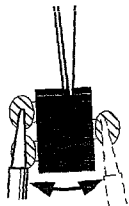


◆ Transistors, diodes, variable resistors, etc.

- (1) Apply extra solder to each lead.



- (2) As shown in the figure, push the part with tweezers and alternately melt the solder at each lead. Shift and remove the chip part.

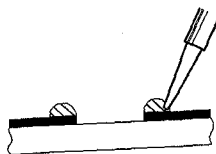


Note : After removing the part, remove remaining solder from the pattern.

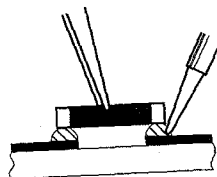
2. How to install Chip parts

◆ Resistors, capacitors, etc.

- (1) Apply solder to the pattern as indicated in the figure.

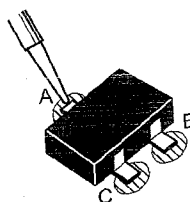


- (2) Grasp the chip part with tweezers and place it on the solder. Then heat and melt the solder at both ends of the chip part.

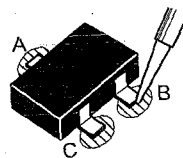


◆ Transistors, diodes, variable resistors, etc.

- (1) Apply solder to the pattern as indicated in the figure.
- (2) Grasp the chip part with tweezers and place it on the solder.
- (3) First solder lead A as indicated in the figure.



- (4) Then solder leads B and C.



SERVICE ADJUSTMENTS

BEFORE STARTING SERVICE ADJUSTMENT

1. There are 2 ways of adjusting this TV: One is with the REMOTE CONTROL UNIT and the other is the conventional method using adjustment parts and components.
2. The setting (adjustment) using the REMOTE CONTROL UNIT is made on the basis of the initial setting values. The setting values which adjust the screen to the optimum condition can be different from the initial setting values.
3. Make sure that connection is correctly made to AC power source.
4. Turn on the power of the TV and measuring instrument for warming up for at least 30 minutes before starting adjustment.
5. If the receive or input signal is not specified, use the most appropriate signal for adjustment.
6. Never touch parts (such as variable resistors, transformers and condensers) not shown in the adjustment items of this service adjustment.
7. Preparation for adjustment (presetting):
Unless otherwise specified in the adjustment items, preset the following functions with the REMOTE CONTROL UNIT.

PICTURE MODE (VSM)	BRIGHT
VNR	OFF
BLUE BACK	OFF
TINT/COLOUR/BRIGHT/CONT.	CENTER
ECO SENSOR	OFF
AUTO SHUTOFF	OFF
OFF TIMER / ON TIMER	OFF

MEASURING INSTRUMENT AND FIXTURES

1. DC voltmeter (or digital voltmeter)
2. Oscilloscope
3. Signal generator (Pattern generator) [PAL / SECAM / NTSC]
4. Remote control unit

ADJUSTMENT ITEMS

Adjustment Item	Adjustment Item
B1 POWER SUPPLY	DEF. CIRCUIT ADJUSTMENT
FOCUS ADJUSTMENT	VSM ADJUSTMENT
IF CIRCUIT ADJUSTMENT	PIP CIRCUIT ADJUSTMENT
V/C CIRCUIT ADJUSTMENT	

BASIC OPERATION OF SERVICE MENU

1. TOOL OF SERVICE MENU OPERATION

Operate the SERVICE MENU with the REMOTE CONTROL UNIT.

2. SERVICE MENU ITEMS

With the SERVICE MENU, various settings (adjustments) can be made, and they are broadly classified in the following items of settings :

- 1. IF For entering/adjusting the setting values (adjustment values) of the IF circuit.
- 2. V/C For entering/adjusting the setting values (adjustment values) of the VIDEO/CHROMA circuit.
- 3. DEF. For entering / adjusting the setting values (adjustment values) of the DEFLECTION circuit.
- 4. VSM PRESET For setting the values of STANDARD, SOFT and BRIGHT. (VSM : video status memory)
- 7. CENTER For setting the CENTER adjust values of TREBLE and BASS.
- 9. TURBO TIMER For quick setting the values of TIMER COUNT adjustable not only by minutes but also by second.
If it is ON, the time in TIMER mode changes from 1 minute into 1 second temporarily.
If you turn the TV power off, this setting becomes OFF automatically.
(applicable to OFF TIMER, ON TIMER, AUTO SHUTOFF)

3. BASIC OPERATION OF SERVICE MENU

(1) How to enter SERVICE MENU

Press the DISPLAY key and the PICTURE MODE key of the REMOTE CONTROL UNIT simultaneously.

The SERVICE MENU screen of Fig. 1 will be displayed.

(2) Selection of SUB MENU SCREEN

Press one of the keys 1 ~ 9 of the REMOTE CONTROL UNIT, and select the SUB MENU SCREEN (See Fig.2) from the SERVICE MENU.

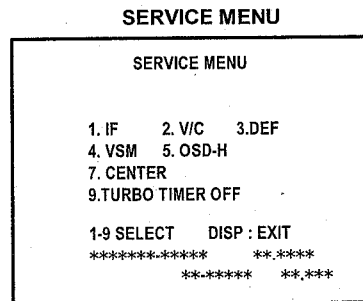


Fig. 1

SERVICE MENU → SUB MENU

- 1. IF
- 2. V / C
- 3. DEF.
- 4. VSM
- 7. CENTER
- 9. TURBO TIMER

(3) Setting method

- * Once the setting values are set, they are memorized automatically.
- * It must not adjust without signal.

1) 1. IF

[VCO]

- ① 1 Key..... Select 1. IF.
- ② 1 Key..... Select 1. VCO.(CW)
- ③ The VCO(CW) screen will be displayed in yellow when the AFC voltage is at a certain level and in blue when it is at other levels.
- ④ DISPLAY Key..... When this is pressed twice, you will return to the **SERVICE MENU**.

[DELAY POINT]

- ① 1 Key..... Select 1. IF.
- ② 2 Key..... Select 2. DELAY POINT.
- ③ MENU - / + Key Set (adjust) the setting values of the setting items.
- ④ DISPLAY Key..... When this is pressed twice, you will return to the **SERVICE MENU**.

2) 2. V/C / 3. DEF / 4. VSM and 7. CENTER

- ① 2~4 Keys..... Select one from 2. V/C, 3. DEF, 4. VSM and 7. CENTER
- ② MENU ▽ / △ key..... Select setting items.
- ③ MENU - / + Key Set (adjust) the setting values of the setting items.
(Use the number keys of the REMOTE CONTROL UNIT for setting of WHITE BALANCE and BLACK OFFSET. For the setting, refer to each item concerned.)
- ④ DISPLAY Key..... When this is pressed , you will return to the **SERVICE MENU**.

3) 9. TURBO TIMER

- ① By pressing the 9-key, you can change the ON or OFF positions.

(4) Release of SERVICE MENU

After completing the setting, return to the **SERVICE MENU**, then again press the DISPLAY key.

SUB MENU SCREEN

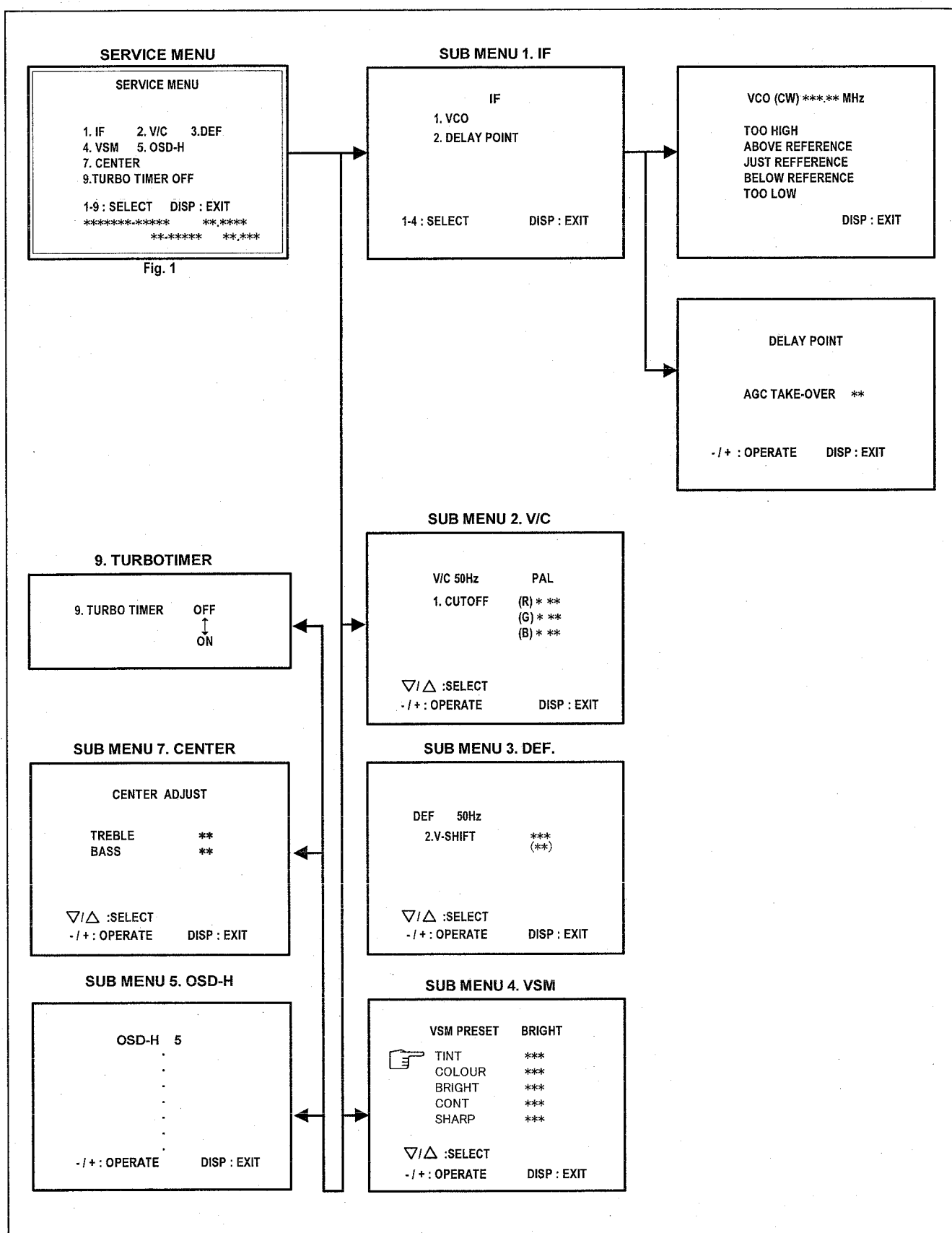
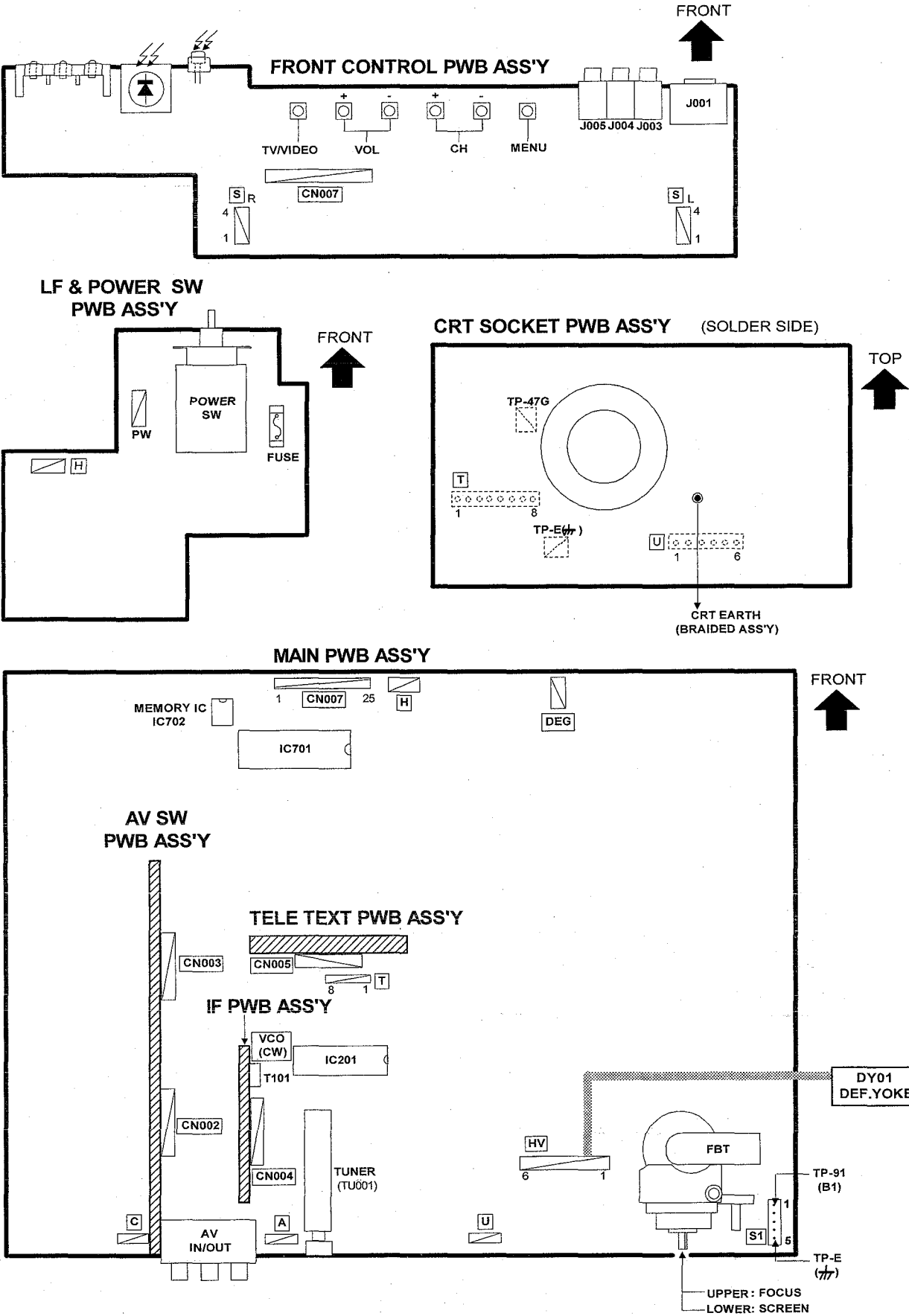


Fig.2

ADJUSTMENT LOCATIONS



ADJUSTMENTS

B1 POWER SUPPLY

Item	Measuring instrument	Test point	Adjustment part	Description
Check of B1 POWER SUPPLY	Signal generator DC Volt-meter	TP-91 (B1) TP-E (↓) [S1connector]		1. Receive a whole black signal. 2. Connect a DC voltmeter to TP-91(B1) and TP-E (↓). 3. Make sure that the voltage is $DC134 \pm 2.0V$.

FOCUS ADJUSTMENT

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of FOCUS	Signal generator		FOCUS VR [In FBT]	1. Receive a cross-hatch signal. 2. While watching the screen, adjust the FOCUS VR to make the vertical and horizontal lines as fine and sharp as possible. 3. Make sure that when the screen is darkened, the lines remain in good focus.

IF CIRCUIT ADJUSTMENT

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of VCO (CW)	Remote control unit		VCO1(CW) TRANSF. [IF PWB]	• Under normal conditions, no adjustment is required. 1. Select 1.IF from the SERVICE MENU. 2. Press 1 key and select 1.VCO. 3. Select a receivable broadcast channel with the CHANNEL key. 4. Turn the core of VCO1(CW) TRANSF. until the colour of the characters TOO HIGH displayed on the screen changes from blue to Yellow. (Step 1) 5. Turn the core of VCO1(CW) TRANSF. until the colour of the characters TOO LOW changes from blue to Yellow. (Step 2) 6. Then slowly turn back the core of VCO1(CW) TRANSF. until the colour of the characters JUST REFERENCE changes from blue to Yellow. (Step 3) 7. Press the DISPLAY key three times to return to normal screen. 8. Perform CHANNEL PRESET again, and make sure that each broadcast is being received properly.

Screen display	Step		
	1	2	3
TOO HIGH	Yellow	Blue	Blue
ABOVE REFERENCE	Blue	Blue	Blue
JUST REFERENCE	Blue	Blue	Yellow
BELOW REFERENCE	Blue	Blue	Blue
TOO LOW	Blue	Yellow	Blue

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of DELAY POINT (AGC)	Remote control unit		DELAY POINT (AGC TAKE-OVER)	1. Receive a black and white signal (colour off). 2. Select 1. IF from the SERVICE MENU. 3. Select 2. DELAY POINT by pressing the 2 key on the remote control. 4. Adjust the MENU - or + key until video noise disappears. 5. Press the DISPLAY key three times to return to normal screen. 6. Turn to other channels and make sure that there are not irregularities.
Setting (adjustment) item		Variable range	Initial setting value	
DELAY POINT (AGC TAKE-OVER)		0~63	19	

V / C CIRCUIT ADJUSTMENT

The setting (adjustment) using the REMOTE CONTROL UNIT is made on the basis of the initial setting values.
 The setting values which adjust the screen to the optimum condition can be different from the initial setting values.

Setting item		Variable range	Initial setting value			
			PAL	SECAM	NTSC 3.58	NTSC 4.43
1. CUT OFF (R / G / B)		-128~+127	+00	←	←	←
2. DRIVE (R / B)		-128~+127	+00	←	←	←
3. BRIGHT		-128~+127	+00	←	←	←
4. CONT.		-47~+39	+12	←	←	←
5. COLOUR		-128~+66	+10	+11	+17	-02
6. TINT	TV / VIDEO	-66~+61	+00 / +00	+00 / +00	+10 / +00	-04 / +00
7. BLACK OFFSET (R-Y / B-Y)		-8~+7	—	+00 / +00	—	—

V / C CIRCUIT ADJUSTMENT

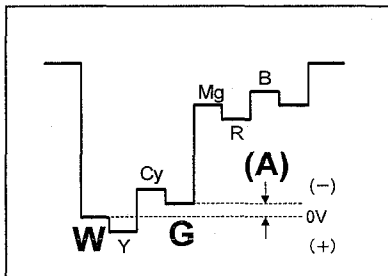
- The items in the following table, it is no requirement for adjustment.
- If values had changed by the miss operation, set the initial setting values in the following table.

Setting item		Variable range	Initial setting value			
			PAL	SECAM	NTSC 3.58	NTSC 4.43
1. SHARP	TV / VIDEO	-32~+31	-18 / +00	←	←	←
9. TEXT (RGB) CONT.		-128~+101	+50	←	←	←
10. B.S.OFF		+00~+01	+00	←	←	←
11. B.S.POINT		+00~+07	+00	←	←	←
12. DC TRAN RATE		+00~+07	+06	←	←	←
13. APA-CON FO/SW		+00~+03	+02	←	←	←
14. VSM PHASE		+00~+03	+02	←	←	←
15. VSM GAIN		+00~+03	+01	←	←	←
16. CLL SW		+00~+01	+00	←	←	←
17. CLL LEVEL		+00~+03	+02	←	←	←
18. ABL POINT		+00~+07	+00	←	←	←
19. ABL GAIN		+00~+07	+02	←	←	←
20. Y-DL(TV / VIDEO / S)		+00~+07	+01 / +01 / +02	+00 / +03 / +03	+00 / +01 / +02	+03 / +03 / +02
21. P.ACL SW		+00~+01	+01	←	←	←
22. WPL SW		+00~+01	+00	←	←	←
23. Y GAMMA		+00~+01	+00	←	←	←
24. V ENHANCE		+00~+07	+00	←	←	←
25. 3D Y/C		ON / OFF	ON	←	←	←

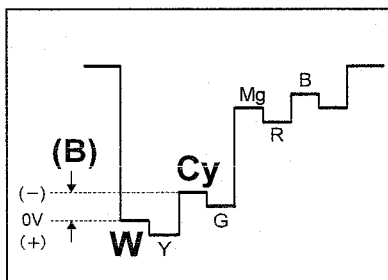
Item	Measuring instrument	Test point	Adjustment part	Description													
Adjustment of WHITE BALANCE (Low light)	● Signal generator ● Remote control unit		1. CUT OFF (R) CUT OFF (G) CUT OFF (B) SCREEN VR (IN FBT)	1. Receive a black and white signal (colour off). 2. Select 2. V/C from the SERVICE MENU. 3. Select 1. CUT OFF (R), (G) and (B) with MENU ▽/△, and set each value to initial setting value with 4~9 keys of the remote control unit. 4. Press the 1 key of the remote control unit to produce a single horizontal line. 5. Turn the SCREEN VR fully counter-clockwise, then slowly turn it clockwise to where a red, blue and green colour is faintly visible. 6. Use keys 4~9 of the remote control unit and adjust the other 2 colours to where the single horizontal line appears white. 7. Turn the SCREEN VR to where the single horizontal line glows faintly. 8. Press the 2 key to return to 1. CUT OFF screen. 9. Press the DISPLAY key twice to return to the normal screen.													
SUB MENU 2. V/C V/C 50Hz PAL 1. CUTOFF (R) * ** (G) * ** (B) * ** ▽/△ :SELECT - / + : OPERATE DISP : EXIT																	
REMOTE CONTROL UNIT H.LINE OFF H.LINE ON R. CUTOFF(△) R. DRIVE(△) R. CUTOFF(▽) R. DRIVE(▽) 1 2 3 4 5 6 7 8 9 G. CUTOFF(△) B. CUTOFF(△) B. DRIVE(△) B. CUTOFF(▽) B. DRIVE(▽) G. CUTOFF(▽)																	
<table><tr><th>Setting (Adjustment) item</th><th>Variable range</th><th>Initial setting value</th></tr><tr><td rowspan="3">1. CUT OFF</td><td>R</td><td>-128~+127</td><td>+00</td></tr><tr><td>G</td><td>-128~+127</td><td>+00</td></tr><tr><td>B</td><td>-128~+127</td><td>+00</td></tr></table>					Setting (Adjustment) item	Variable range	Initial setting value	1. CUT OFF	R	-128~+127	+00	G	-128~+127	+00	B	-128~+127	+00
Setting (Adjustment) item	Variable range	Initial setting value															
1. CUT OFF	R	-128~+127	+00														
	G	-128~+127	+00														
	B	-128~+127	+00														
Adjustment of WHITE BALANCE (High light)	● Signal generator ● Remote control unit		2. DRIVE (R) DRIVE (B)	1. Receive a black and white signal (colour off). 2. Select 2. V/C from the SERVICE MENU. 3. Select 2. DRIVE (R) / (B) with MENU ▽/△, and set each value to initial setting value with 4 and 7 or 6 and 9 keys of the remote control unit. 4. Use the keys 4 and 7 or 6 and 9 to produce a white screen. 5. Press the DISPLAY key twice to return to the normal screen.													
V/C 50Hz PAL 2. DRIVE (R) * ** (B) * ** ▽/△ :SELECT - / + : OPERATE DISP : EXIT																	
<table><tr><th>Setting (Adjustment) item</th><th>Variable range</th><th>Initial setting value</th></tr><tr><td rowspan="2">2. DRIVE</td><td>R</td><td>-128~+127</td><td>+00</td></tr><tr><td>B</td><td>-128~+127</td><td>+00</td></tr></table>					Setting (Adjustment) item	Variable range	Initial setting value	2. DRIVE	R	-128~+127	+00	B	-128~+127	+00			
Setting (Adjustment) item	Variable range	Initial setting value															
2. DRIVE	R	-128~+127	+00														
	B	-128~+127	+00														

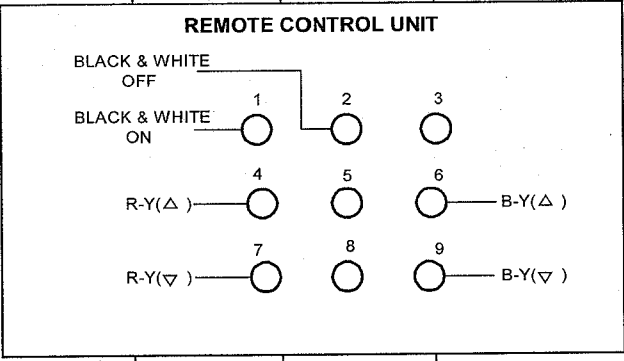
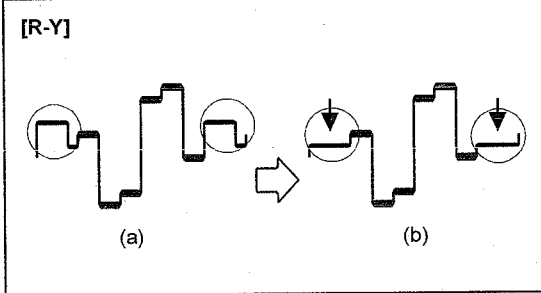
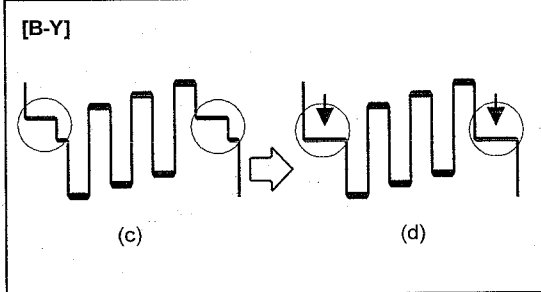
Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of SUB BRIGHT	● Remote control unit		3. BRIGHT	1. Receive any broadcast. 2. Select 2. V/C from SERVICE MENU. 3. Select 3. BRIGHT with the MENU ▽ / △ key. 4. Set the initial setting value with the MENU - or + key. 5. If the brightness is not the best with the initial setting value, make fine adjustment until you get the best brightness. 6. Press the DISPLAY key twice to return to the normal screen.
Adjustment of SUB CONTRAST	● Remote control unit		4. CONT.	1. Receive any broadcast. 2. Select 2. V/C from SERVICE MENU. 3. Select 4. CONT. with the MENU ▽ / △ key. 4. Set the initial setting value with the MENU - or + key. 5. If the contrast is not the best with the initial setting value, make fine adjustment until you get the best contrast. 6. Press the DISPLAY key twice to return to the normal screen. 7.
Adjustment of SUB COLOUR- I	● Remote control unit		5. COLOUR	[Method of adjustment without measuring instrument]
			PAL COLOUR	(PAL COLOUR) 1. Receive a PAL broadcast. 2. Select 2. V/C from the SERVICE MENU. 3. Select 5. COLOUR with the MENU ▽ / △ key. 4. Set the initial setting value for PAL COLOUR with the MENU - or + key. 5. If the colour is not the best with the initial setting value, make fine adjustment until you get the best colour. 6. Press the DISPLAY key twice to return to the normal screen.
			SECAM COLOUR	(SECAM COLOUR) 1. Receive a SECAM broadcast. 2. Make fine adjustment of SECAM COLOUR as previously.
			NTSC 3.58 COLOUR	(NTSC 3.58 COLOUR) 1. Receive a NTSC 3.58MHz broadcast. 2. Make similar fine adjustment of NTSC 3.58 COLOUR as previously.
				(NTSC 4.43 COLOUR) When NTSC 3.58 is set, NTSC 4.43 will be automatically set at the respective values.

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of SUB COLOUR-II	• Signal generator • Oscilloscope • Remote control unit	TP-47G TP-E (↗) [CRT SOCKET PWB]	5. COLOUR	[Method of adjustment using measuring instrument]
			PAL COLOUR	(PAL COLOUR) 1. Receive a PAL full field colour bar signal (75% white). 2. Select 2. V/C from SERVICE MENU. 3. Select 5. COLOUR with the MENU ▽ / △ key. 4. Set the initial setting value of PAL COLOUR with the MENU - or + key. 5. Connect the oscilloscope between TP-47G and TP-E. 6. Adjust PAL COLOUR and bring the value of (A) in the illustration to +10V (V_{W-G}).
			SECAM COLOUR	(SECAM COLOUR) 1. Receive a SECAM full field colour bar signal (75% white). 2. Set the initial setting value of SECAM COLOUR with the MENU - or + key. 3. Adjust SECAM COLOUR and bring the value of (A) in the illustration to +6V (V_{W-G}).
			NTSC 3.58 COLOUR	(NTSC 3.58 COLOUR) 1. Receive a NTSC 3.58 full field colour bar signal (75% white). 2. Set the initial setting value of NTSC 3.58 COLOUR with the MENU - or + key. 3. Adjust NTSC 3.58 COLOUR and bring the value of (A) in the illustration to +12V (V_{W-G}).
			NTSC 4.43 COLOUR	(NTSC 4.43 COLOUR) When NTSC 3.58 is set, NTSC 4.43 will be automatically set at the respective values.



Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of SUB TINT- I	● Remote control unit		6. TINT	[Method of adjustment without measuring instrument]
			NTSC 3.58 TINT	(NTSC 3.58 TINT) 1. Receive a NTSC 3.58 full field colour bar signal (75% white). 2. Select 2. V/C from SERVICE MENU. 3. Select 6. TINT with the MENU ∇ / Δ key. 4. Set the initial setting value of NTSC 3.58 with the MENU - or + key. 5. If you cannot get the best tint with the initial setting value, make fine adjustment until you get the best tint. 6. Press the DISPLAY key twice to return to the normal screen.
				(NTSC 4.43 COLOUR) When NTSC 3.58 is set, NTSC 4.43 will be automatically set at the respective values.
Adjustment of SUB TINT- II	● Signal generator ● Oscilloscope ● Remote control unit	TP-47G TP-E ($\searrow$) [CRT SOCKET PWB]	6. TINT	[Method of adjustment using measuring instrument]
			NTSC 3.58 TINT	(NTSC 3.58 TINT) 1. Receive a NTSC 3.58 full field colour bar signal (75% white). 2. Select 2. V/C from SERVICE MENU. 3. Select 6. TINT with the MENU ∇ / Δ key. 4. Set the initial setting value of NTSC 3.58 with the MENU - or + key. 5. Connect the oscilloscope between TP-47G and TP-E. 6. Adjust NTSC 3.58 TINT to bring the value of (B) in the illustration to +12V (V_{W-CY}).
			NTSC 4.43 TINT	(NTSC 4.43 TINT) When NTSC 3.58 is set, NTSC 4.43 will be automatically set at the respective values.



Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of BLACK OFFSET-I (SECAM)	● Remote control unit		7. BLACK OFFSET (R-Y) (B-Y)	[Method of adjustment without measuring instrument] 1. Receive a SECAM broadcast. 2. Select 2. V/C from SERVICE MENU. 3. Select 7. BLACK OFFSET with the MENU ∇ / Δ key. 4. Set the initial setting value for BLACK OFFSET (R-Y) and (B-Y) with 4 and 7 or 6 and 9 keys of the remote control. 5. If the picture is not the best with the initial setting value, make fine adjustment until you get the best picture. 6. Press the DISPLAY key twice to return to the normal screen.
				REMOTE CONTROL UNIT 
Adjustment of BLACK OFFSET-II (SECAM)	● Signal generator ● Oscilloscope ● Remote control unit	35 PIN (R-Y) 36 PIN (B-Y) IC 201 On MAIN PWB	7. BLACK OFFSET (R-Y) (B-Y)	[Method of adjustment using measuring instrument] 1. Receive a SECAM COLOUR bar signal (full field colour bar 75% white). 2. Select 2. V/C from SERVICE MENU. 3. Select 7. BLACK OFFSET with the ∇ / Δ key. 4. Connect the oscilloscope between 35 pin of IC 201 and TP-E. 5. By using 4 and 7 keys of the remote control, adjust the BLACK OFFSET (R-Y) so that it becomes the waveform changes from (a) to (b) shown in the figure. 6. Connect the oscilloscope between 36 pin of IC 201 and TP-E. 7. By using 6 and 9 keys of the remote control, adjust the BLACK OFFSET (B-Y) so that it becomes the waveform changes from (c) to (d) shown in the figure. 8. If the picture is not the best with the adjusted picture, make fine adjustment until you get the best picture. 9. Press the DISPLAY key twice to return to the normal screen.
				[R-Y]  [B-Y] 

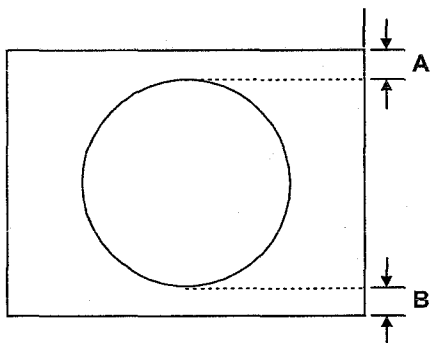
DEFLECTION CIRCUIT ADJUSTMENT

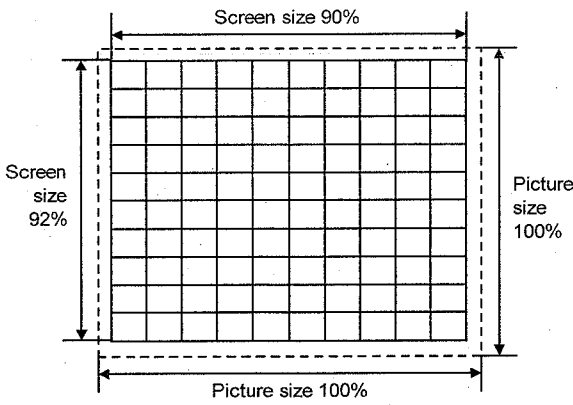
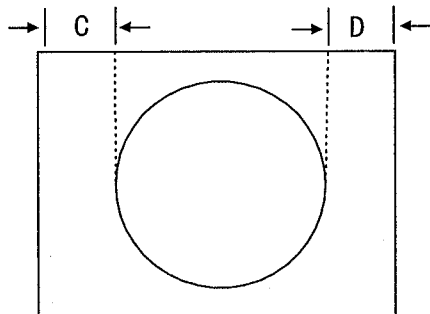
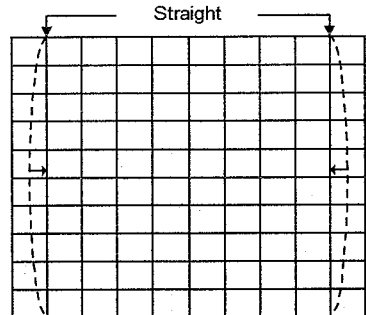
- There are 2 modes of adjustment (Initial setting value) — ① 50Hz mode and ② 60Hz mode — depending upon the kind of signals (vertical frequency 50Hz / 60Hz).
- When adjusted in mode ①, mode ② will be automatically set.

The setting (adjustment) using the REMOTE CONTROL UNIT is made on the basis of the initial setting values.
The setting values which adjust the screen to the optimum condition can be different from the initial setting values.

Setting item	Adjustment name	Variable range	Initial setting value	
			① 50Hz	② 60Hz
1. TRAPEZ	Trapezoidal distortion correction	-32 ~ +31	-02	+03
2. V-SHIFT	Vertical center	-32 ~ +31	-01	+01
3. V-SIZE	Vertical height	-64 ~ +63	-24	-01
4. H-CENT	Horizontal center	-16 ~ +15	-10	-05
5. H-SIZE	Horizontal width	-32 ~ +31	+20	+00
6. EW-PIN	Side pin correction	-32 ~ +31	-18	+01
7. V.S-CR	Vertical height correction	-16 ~ +15	-09	+02
8. V-EDGE	Vertical Edge correction	-08 ~ +07	-02	+02
9. EW-COR	Side pin fore correction	-08 ~ +07	-08	+03
10.V-LIN.	Vertical linearity	-16 ~ +15	+01	-02
11.H.COMP.	Horizontal Comp.	[FIXED]	[+03]	[+00]

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of V-SHIFT			2.V. SHIFT	[① 50Hz mode] - Receive a circle pattern signal of vertical frequency 50Hz. - Select 3. DEF from SERVICE MENU. - Select 2. V-SHIFT with the MENU ∇ / Δ key. - Set the initial setting value of 2.V-SHIFT with the MENU - / + key. - Adjust V-SHIFT to make A = B.



Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of V-SIZE			3.V-SIZE	1. Receive a cross-hatch signal. 2. Select 3. V-SIZE with the MENU ∇ / Δ key. 3. Set the initial setting value of 3. V-SIZE with the MENU - / + key. 4. Adjust 3. V-SIZE and make the vertical screen size 92% of the picture size.
				
Adjustment of H-CENT			4.H-CENT	1. Receive a circle pattern signal 2. Select 4. H- CENT with the MENU ∇ / Δ key. 3. Set the initial setting value of 4. H- CENT with the MENU - / + key. 4. Adjust 4. H- CENT to make C=D with the MENU - / + key.
				
Adjustment of H-SIZE			5. H-SIZE	1. Receive a cross-hatch signal. 2. Select 5. H.SIZE with the MENU ∇ / Δ key. 3. Set the initial setting value of 5. H-SIZE with the MENU - / + key. 4. Adjust 5. H-SIZE and make sure that the horizontal screen size of the picture size is 90%.
Adjustment of EW-PIN			6. EW-PIN	5. Select 6. EW-PIN with the MENU ∇ / Δ key. 6. Set the initial setting value of 6.EW-PIN with the MENU - / + key. 7. Adjust 6. EW-PIN and make the 1st vertical line at the left and right edges of the screen straight. 8. Also make sure that the 2nd vertical lines are also straight.
				

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of TRAPEZ	Signal generator Remote control unit		1. TRAPEZ	8. Select 1. TRAPEZ with the MENU ∇ / Δ key. 9. Set the initial setting value of 1. TRAPEZ with the MENU - / + key. 10. Adjust 1. TRAPEZ and bring the vertical lines at the right and left edges of the screen parallel.
Adjustment of V.S-CR & V.LIN.			7. V.S-CR 10. V.LIN.	● When the vertical linearity has been deteriorated remarkably, perform the following steps. 1. Receive a cross-hatch signal. 2. Select 7. V.S-CR with the MENU ∇/Δ key. 3. Set the initial setting value of 7. V.S-CR with the MENU - / + key. 4. Select 10. V.LIN. with the MENU ∇/Δ key. 5. Set the initial setting value of 10. V.LIN. with the MENU - / + key. 6. Adjust 7. V.S-CR and 10. V.LIN. so that the spaces of each line on TOP, CENTER and BOTTOM become uniform.
Adjustment of EW-COR			9. EW-COR	7. Select 9. EW-COR with the MENU ∇ / Δ key. 8. Set the initial setting value of 9. EW-COR with the MENU - / + key. 9. Adjust 9. EW-COR and make the vertical lines at the four corners of the screen straight. 10. Press the MENU key and memorize the set value. ★ No alignment, but adjust this mode if result of no alignment is too bad. ● Make sure that the adjustment is properly done on the screen of ② 60Hz mode ● When adjust ② 60Hz mode, only 60Hz mode is adjust.

VSM PRESET ADJUSTMENT

Item	Measuring instrument	Test point	Adjustment part	Description																																								
Setting of VSM PRESET	● Remote control unit		TINT COLOUR BRIGHT CONT. SHARP	1. Select 4. VSM PRESET from the SERVICE MENU. 2. Select BRIGHT with the PICTURE MODE key. 3. Adjust the MENU ▽ / △ and MENU - or + key to bring the set values of TINT ~ SHARP to the values shown in the table. 4. Respectively select the VSM PRESET mode for SOFT, and STANDARD, and make similar adjustment as in 3 above.																																								
SUB MENU 4. VSM <table><tr><td>VSM PRESET</td><td>BRIGHT</td></tr><tr><td> TINT</td><td>***</td></tr><tr><td>COLOUR</td><td>***</td></tr><tr><td>BRIGHT</td><td>***</td></tr><tr><td>CONT</td><td>***</td></tr><tr><td>SHARP</td><td>***</td></tr></table> ▽/△ :SELECT -/+ : OPERATE DISP : EXIT				VSM PRESET	BRIGHT	 TINT	***	COLOUR	***	BRIGHT	***	CONT	***	SHARP	***	<table><tr><th>VSM preset VSM mode Setting item</th><th colspan="3">SETTING VALUE</th></tr><tr><th></th><th>BRIGHT</th><th>STANDARD</th><th>SOFT</th></tr><tr><td>TINT SETTING VALUE</td><td>+00</td><td>←</td><td>←</td></tr><tr><td>COLOUR SETTING VALUE</td><td>+00</td><td>←</td><td>-01</td></tr><tr><td>BRIGHT SETTING VALUE</td><td>+00</td><td>←</td><td>←</td></tr><tr><td>CONT. SETTING VALUE</td><td>+15</td><td>+00</td><td>-04</td></tr><tr><td>SHARP SETTING VALUE</td><td>+00</td><td>←</td><td>-03</td></tr></table> SETTING VALUE OF VSM PRESET	VSM preset VSM mode Setting item	SETTING VALUE				BRIGHT	STANDARD	SOFT	TINT SETTING VALUE	+00	←	←	COLOUR SETTING VALUE	+00	←	-01	BRIGHT SETTING VALUE	+00	←	←	CONT. SETTING VALUE	+15	+00	-04	SHARP SETTING VALUE	+00	←	-03
VSM PRESET	BRIGHT																																											
 TINT	***																																											
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CONT. SETTING VALUE	+15	+00	-04																																									
SHARP SETTING VALUE	+00	←	-03																																									

CENTER ADJUSTMENT

- Do not touch 7.CENTER(TREBLE, BASS) of the SERVICE MENU as it requires no adjustment.

7. CENTER

Setting (adjustment) item	Initial setting value (fixed)
TREBLE (Do not adjust)	+00
BASS (Do not adjust)	+00

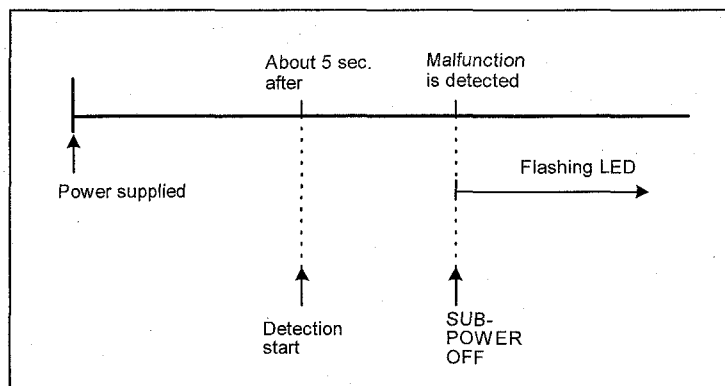
SELF CHECK FUNCTIONS

1. Outline

This model has self check functions for over-current. When an abnormality has been detected, the SUB POWER is turned off and the LED turns on and off to inform of the failure. An abnormality is detected by the signal input state of the control line connected to the main microcomputer.

2. Self check indicating function

When an abnormality has been detected at about five seconds after the power is turned on, the SUB POWER is turned off immediately and the LED turns on and off.



[Indication by LED]

Item	LED ON / OFF intervals	Priority detection
① Over-current protection	Turning on and off 0.2 -second intervals	1
② CRT NECK protection	Turning on and off 1 -second intervals	2

NOTE : In case of ① + ②, the item ① is indicated.

3. Self check items

Check item	Details of detection	Method of detection	State of abnormality
Over-current protection	An over-current on the LOW B line is detected	The main microcomputer detects the possible abnormality at 30-msec. intervals and judges the results in every 16 time. Of the 16 times, if NG is detected more than 9 times, it is judged that there is an abnormality	When an abnormality has been detected, the SUB-POWER is turned off. While the SUB-POWER is being turned off, the power key of the remote controller is not operational until the power code is taken out and put in again.
CRT NECK protection	Operation of CRT NECK protection circuit.	DITTO	DITTO

PURITY, CONVERGENCE

PURITY ADJUSTMENT

1. Demagnetize CRT with the demagnetizer.
2. Loosen the retainer screw of the deflection yoke.
3. Remove the wedges.
4. Input a green raster signal from the signal generator, and turn the screen to green raster.
5. Move the deflection yoke backward.
6. Bring the long lug of the purity magnets on the short lug and position them horizontally. (Fig.2)
7. Adjust the gap between two lugs so that the GREEN RASTER will come into the center of the screen. (Fig.3)
8. Move the deflection yoke forward, and fix the position of the deflection yoke so that the whole screen will become green.
9. Insert the wedge to the top side of the deflection yoke so that it will not move.
10. Input a crosshatch signal.
11. Verify that the screen is horizontal.
12. Input red and blue raster signals, and make sure that purity is properly adjusted.

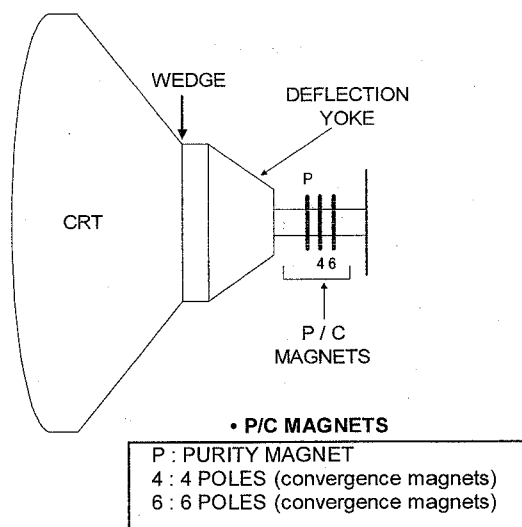


Fig.1

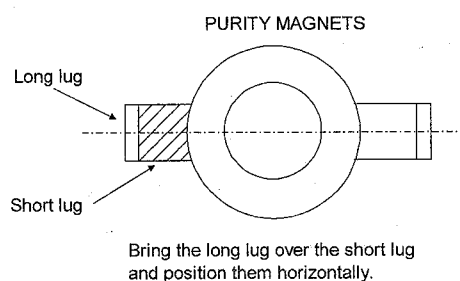


Fig.2

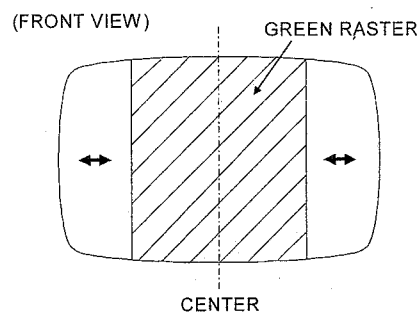


Fig.3

STATIC CONVERGENCE ADJUSTMENT

1. Input a crosshatch signal.
2. Using 4-pole convergence magnets, overlap the red and blue lines in the center of the screen (Fig.1) and turn them to magenta (red/blue).
3. Using 6-pole convergence magnets, overlap the magenta (red/blue) and green lines in the center of the screen and turn them to white.
4. Repeat 2 and 3 above, and make best convergence.

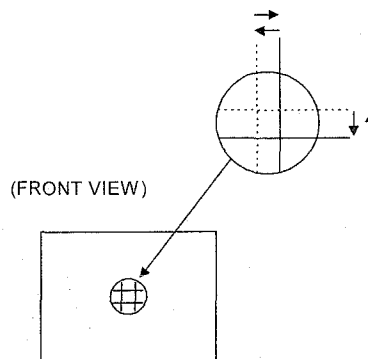


Fig.1

DYNAMIC CONVERGENCE ADJUSTMENT

1. Move the deflection yoke up and down and overlap the lines in the periphery. (Fig. 2)
2. Move the deflection yoke left to right and overlap the lines in the periphery. (Fig. 3)
3. Repeat 1 and 2 above, and make best convergence.

(FRONT VIEW)

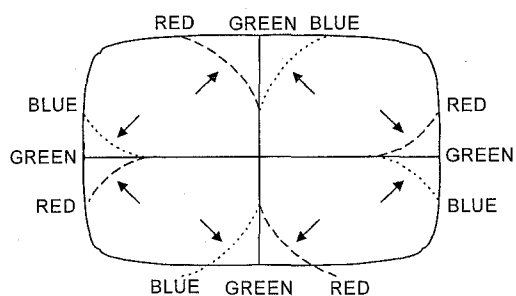


Fig.2

- After adjustment, fix the wedge at the original position.
Fasten the retainer screw of the deflection yoke.
Fix the 6 magnets with glue.

(FRONT VIEW)

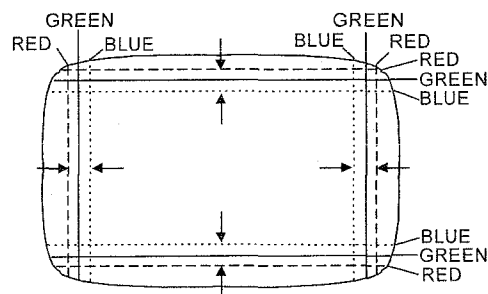


Fig.3

AV-S33MX2 STANDARD CIRCUIT DIAGRAM

■ NOTE ON USING CIRCUIT DIAGRAMS

1. SAFETY

The components identified by the Δ symbol and shading are critical for safety. For continued safety replace safety critical components only with manufactures recommended parts.

2. SPECIFIED VOLTAGE AND WAVEFORM VALUES

The voltage and waveform values have been measured under the following conditions.

- (1) Input signal :PAL Colour bar signal
 - (2) Setting positions of each knob/button and variable resistor :Original setting position when shipped
 - (3) Internal resistance of tester :DC 20k Ω /V
 - (4) Oscilloscope sweeping time :H $\Rightarrow$ 20 μ S/div
:V $\Rightarrow$ 5mS/div
:Others $\Rightarrow$ Sweeping time is specified
 - (5) Voltage values :All DC voltage values
- * Since the voltage values of signal circuit vary to some extent according to adjustments, use them as reference values.

3. INDICATION OF PARTS SYMBOL [EXAMPLE]

- In the PW board :R1209 $\rightarrow$ R209

4. INDICATIONS ON THE CIRCUIT DIAGRAM

(1) Resistors

● Resistance value

- No unit :[Ω]
- K :[K Ω]
- M :[M Ω]

● Rated allowable power

- No indication :1/10[W]
- Others :As specified

● Type

- No indication :Carbon resistor
- OMR :Oxide metal film resistor
- MFR :Metal film resistor
- MPR :Metal plate resistor
- UNFR :Uninflammable resistor
- FR :Fusible resistor

*Composition resistor 1/2 [W] is specified as 1/2S or Comp.

(2) Capacitors

● Capacitance value

- 1 or higher :[pF]
- less than 1 :[μ F]

● Withstand voltage

- No indication :DC50[V]
- AC indicated :AC withstand voltage [V]
- Others :DC withstand voltage [V]

*Electrolytic Capacitors

47/50[Example]:Capacitance value [μ F]/withstand voltage[V]

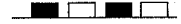
● Type

- No indication :Ceramic capacitor
- MY :Mylar capacitor
- MM :Metalized mylar capacitor
- PP :Polypropylene capacitor
- MPP :Metalized polypropylene capacitor
- MF :Metalized film capacitor
- TF :Thin film capacitor
- BP :Bipolar electrolytic capacitor
- TAN :Tantalum capacitor

(3) Coils

- No unit :[μ H]
- Others :As specified

(4) Power Supply

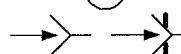
-  :B1
-  :B2(12V)
-  :8V
-  :5V

*Respective voltage values are indicated

(5) Test point

-  :Test point
-  :Only test point display

(6) Connecting method

-  :Connector
-  :Wrapping or soldering
-  :Receptacle

(7) Ground symbol

-  :LIVE side ground
-  :ISOLATED(NEUTRAL) side ground
-  :EARTH ground
-  :DIGITAL ground

5. NOTE FOR REPAIRING SERVICE

This model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : (⊥) side GND and the ISOLATED(NEUTRAL) : (↘) side GND. Therefore, care must be taken for the following points.

- (1) Do not touch the LIVE side GND or the LIVE side GND and the ISOLATED(NEUTRAL) side GND simultaneously. If the above caution is not respected, an electric shock may be caused. Therefore, make sure that the power cord is surely removed from the receptacle when, for example, the chassis is pulled out.
- (2) Do not short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or never measure with a measuring apparatus (oscilloscope, etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND at the same time. If the above precaution is not respected , a fuse or any parts will be broken.

◇ Since the circuit diagram is a standard one, the circuit and circuit constants may be subject to change for improvement without any notice.

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• IF PWB CIRCUIT DIAGRAM 2-9

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PATTERN DIAGRAMS

• AV SW PWB PWB PATTERN

• MAIN PWB PATTERN

• LF & POWER SW PWB PATTERN

• TELETEXT PWB PATTERN

• CRT SOCKET PWB PATTERN

• FRONT CONTROL PWB PATTERN

• IF PWB PATTERN

[SCD-0S008A] 2-17

[SCD-1010A] 2-19

[SCD-9002A] 2-21

[SCD-0T001A] 2-22

[SCD-3002A] 2-23

[SCD-8001A] 2-25

[SCD-0F002A] 2-27

SEMICONDUCTOR SHAPES

TRANSISTOR

BOTTOM VIEW	FRONT VIEW				TOP VIEW
					CHIP TR

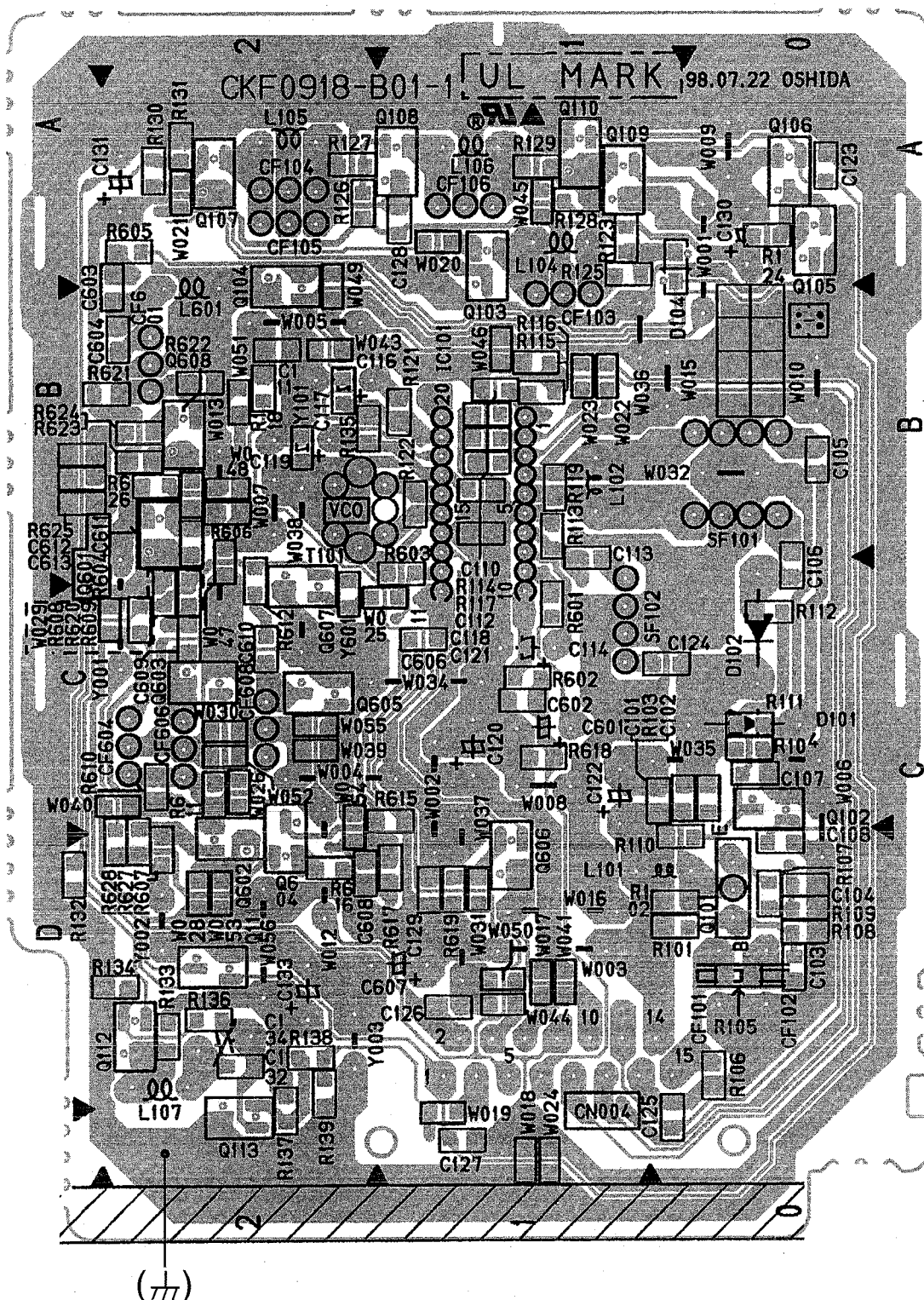
IC

BOTTOM VIEW	FRONT VIEW			TOP VIEW

CHIP IC

TOP VIEW		

[IF PWB PATTERN]



PARTS LIST

CAUTION

- The parts identified by the  symbol are important for the safety. Whenever replacing these parts, be sure to use specified ones to secure the safety.
- The parts not indicated in this Parts List and those which are filled with lines — in the Parts No. columns will not be supplied.
- P. W. Board Ass'y will not be supplied, but those which are filled with the Parts No. in the Parts No. columns will be supplied.

ABBREVIATIONS OF RESISTORS, CAPACITORS AND TOLERANCES

RESISTORS		CAPACITORS	
C R	Carbon Resistor	C CAP.	Ceramic Capacitor
F R	Fusible Resistor	E CAP.	Electrolytic Capacitor
P R	Plate Resistor	M CAP.	Mylar Capacitor
V R	Variable Resistor	HV CAP.	High Voltage Capacitor
HV R	High Voltage Resistor	MF CAP.	Metalized Film Capacitor
MF R	Metal Film Resistor	MM CAP.	Metalized Mylar Capacitor
MG R	Metal Glazed Resistor	MP CAP.	Metalized Polystyrol Capacitor
MP R	Metal Plate Resistor	PP CAP.	Polypropylene Capacitor
OM R	Metal Oxide Film Resistor	PS CAP.	Polystyrol Capacitor
CMF R	Coating Metal Film Resistor	TF CAP.	Thin Film Capacitor
UNF R	Non-Flammable Resistor	MPP CAP.	Metalized Polypropylene Capacitor
CH V R	Chip Variable Resistor	TAN. CAP.	Tantalum Capacitor
CH MG R	Chip Metal Glazed Resistor	CH C CAP.	Chip Ceramic Capacitor
COMP. R	Composition Resistor	BP E CAP.	Bi-Polar Electrolytic Capacitor
LPTC R	Linear Positive Temperature Coefficient Resistor	CH AL E CAP.	Chip Aluminum Electrolytic Capacitor
		CH AL BP CAP.	Chip Aluminum Bi-Polar Capacitor
		CH TAN. E CAP.	Chip Tantalum Electrolytic Capacitor
		CH AL BP E CAP.	Chip Tantalum Bi-Polar Electrolytic Capacitor

TOLERANCES									
F	G	J	K	M	N	R	H	Z	P
±1%	±2%	±5%	±10%	±20%	±30%	+30%	+50%	+80%	+100%
						-10%	-10%	-20%	-0%

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■ PACKING PARTS LIST	48

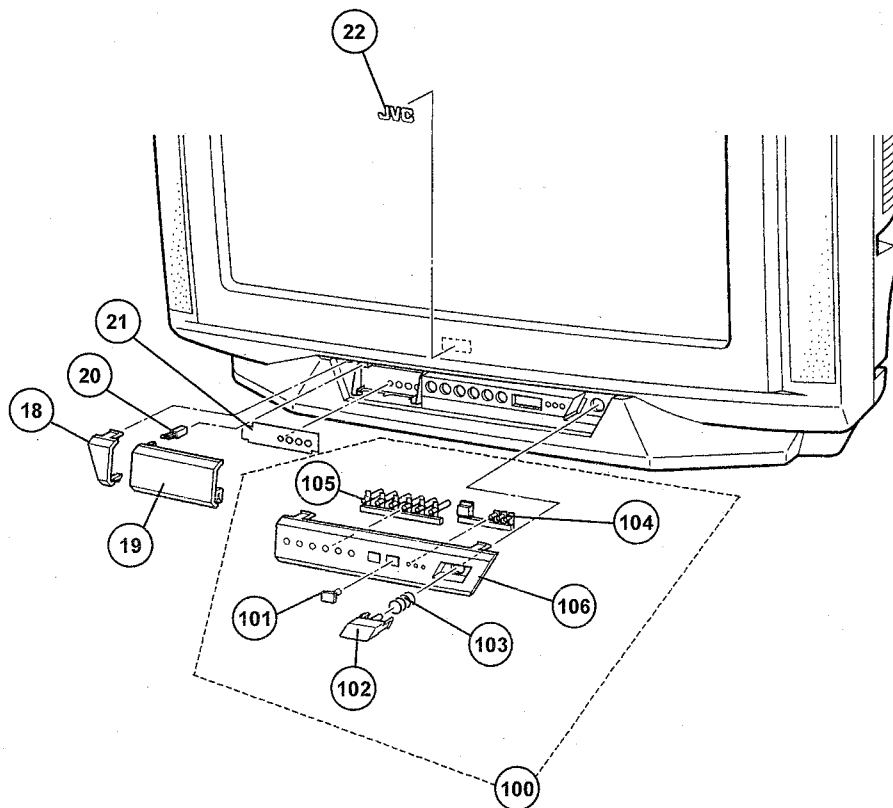
USING P.W. BOARD & REMOTE CONTROL UNIT

P.W.B ASS'Y	Model
	AV-S33MX2
MAIN P.W.B	SCD-1010A
CRT SOCKET P.W.B	SCD-3002A
FRONT CONTROL P.W.B	SCD-8001A
LF & POWER PWB	SCD-9002A
IF P.W.B	SCD-0F002A
AV SW P.W.B.	SCD-0S008A
3D Y / C MODULE PWB	SHI-0Y021B
TELETEXT P.W.B	SCD-0T001A
REMOTE CONTROL UNIT	RM-C232-1C

EXPLODED VIEW PARTS LIST [I]

△ Ref.No.	Part No.	Part Name	Description	Local
18	LC20144-001A	CONTROL PANEL L		
19	LC20146-001A	DOOR		
20	CM48229-00A	DOOR LATCH		
21	LC30397-001A	CONTROL SHEET		
22	CM48006-002	JVC MARK		
100	LC20238-001A	CONTROL KNOB ASS'Y	Inc.No.101~106	
101	LC40175-001A	REMOCON WINDOW		
102	LC30394-001A	POWER KNOB		
103	CM30861-069	SPRING		
104	LC30395-001A	EE LED LENS		
105	LC30396-001A	CONTROL KNOB		
106	LC20145-001A	CONTROL PANEL R		

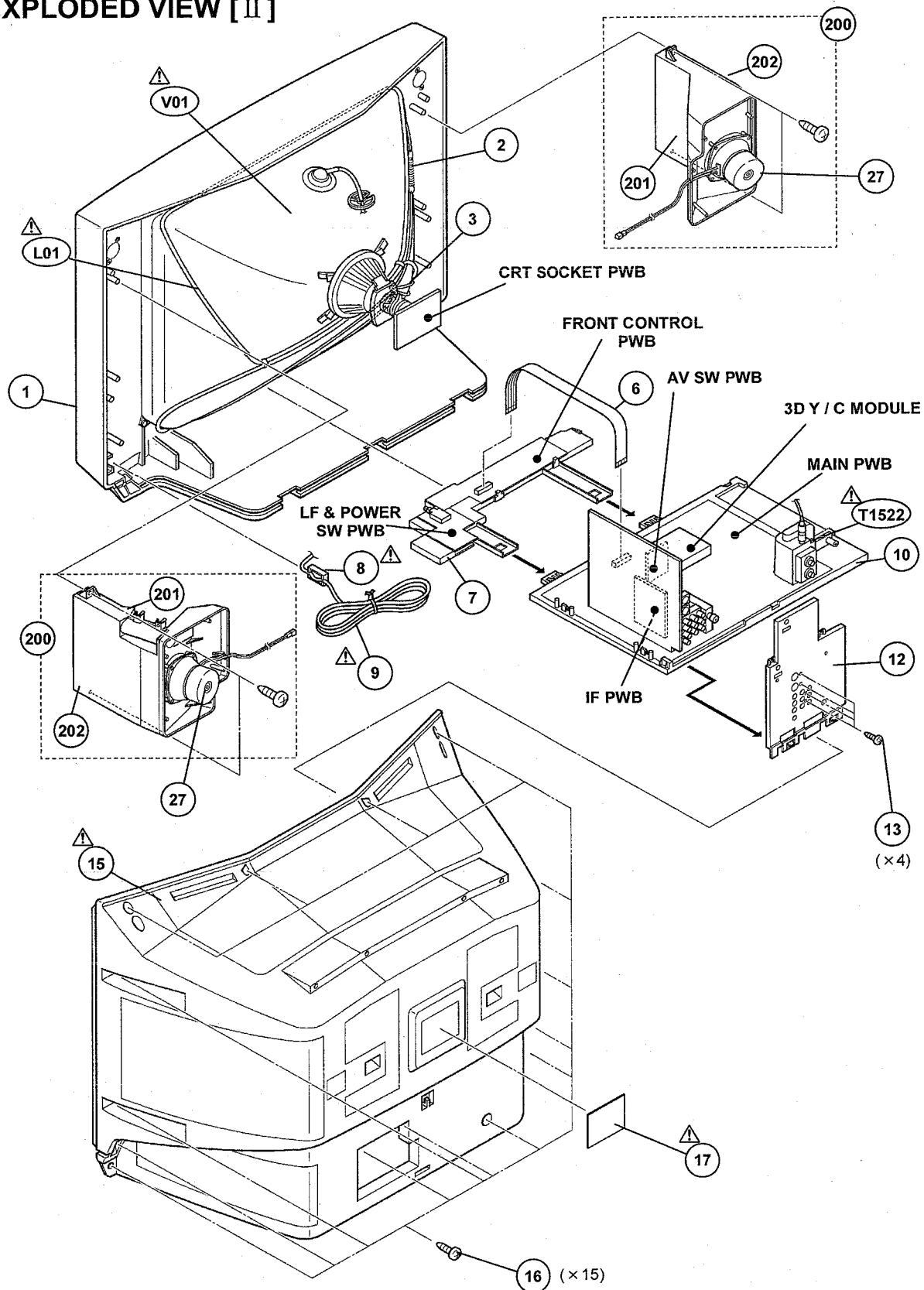
EXPLODED VIEW [I]



EXPLODED VIEW PARTS LIST [Ⅱ]

△ Ref.No.	Part No.	Part Name	Description	Local
△ V01	A80LJF30X19(RW)	PICTURE TUBE	Inc.DY,PC,WED	
△ L01	QQW0015-001	DEG COIL		
△ T1522	QQH0040-001	FBT		
1	LC10179-002B	FRONT CABINET		
2	CHGB0015-0E-N	BRAIDED WIRE		
3	CHGB0016-0D-N	BRAIDED ASSY SUB		
6	CHFB125-22BD-N	FFC WIRE		
7	LC10182-002C	CONTROL BASE		
△ 8	CM47005-A01-H	CORD CLAMP		
△ 9	QMP40D0-200J5	POWER CORD		
10	CM12669-A04-VH	CHASSIS BASE		
12	LC10183-002C	AV BOARD		
13	SBSF3012M	TAPPING SCREW	(×4)For AV BOARD	
△ 15	LC10180-002B-CK	REAR COVER		
16	GBSF4016Z	TAPPING SCREW	(×15)	
△ 17	LC20142-009A	RATING LABEL		
27	QAS0026-001	SPEAKER	(×2)SP01,SP02	
200	LC10334-001A-CK	DOME ASSY	(×2)Inc.No.201~202	
201	LC10197-001B-C	HORN	(×2)	
202	LC10198-001B-C	HORN PANEL	(×2)	

EXPLODED VIEW [II]



PRINTED WIRING BOARD PARTS LIST

MAIN P.W. BOARD ASS'Y (SCD-1010A)

△ Symbol No.	Part No.	Part Name	Description	Local
RESISTOR				
R1001-02	NRSA02J-221X	MG R	220Ω 1/10W J	
R1004	NRSA02J-221X	MG R	220Ω 1/10W J	
R1011	NRSA02J-103X	MG R	10kΩ 1/10W J	
R1101	NRSA02J-473X	MG R	47kΩ 1/10W J	
R1102	NRSA02J-153X	MG R	15kΩ 1/10W J	
R1103	NRSA02J-750X	MG R	75Ω 1/10W J	
R1151-52	NRSA02J-103X	MG R	10kΩ 1/10W J	
R1153	NRSA02J-221X	MG R	220Ω 1/10W J	
R1154	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	
R1201	NRSA02J-182X	MG R	1.8kΩ 1/10W J	
R1202	NRSA02J-222X	MG R	2.2kΩ 1/10W J	
R1203	NRSA02J-274X	MG R	270kΩ 1/10W J	
R1204-05	NRSA02J-391X	MG R	390Ω 1/10W J	
R1206	NRSA02J-103X	MG R	10kΩ 1/10W J	
R1207	NRSA02J-101X	MG R	100Ω 1/10W J	
R1209	NRSA02J-682X	MG R	6.8kΩ 1/10W J	
R1211	QRE141J-101Y	C R	100Ω 1/4W J	
R1235-36	NRSA02J-102X	MG R	1kΩ 1/10W J	
R1237	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	
R1251	NRSA02J-221X	MG R	220Ω 1/10W J	
R1252-53	NRSA02J-102X	MG R	1kΩ 1/10W J	
R1254	NRSA02J-391X	MG R	390Ω 1/10W J	
R1255	NRSA02J-471X	MG R	470Ω 1/10W J	
R1256	NRSA02J-272X	MG R	2.7kΩ 1/10W J	
R1257	NRSA02J-224X	MG R	220kΩ 1/10W J	
R1258	NRSA02J-474X	MG R	470kΩ 1/10W J	
R1259	NRSA02J-333X	MG R	33kΩ 1/10W J	
R1260	NRSA02J-391X	MG R	390Ω 1/10W J	
R1261	NRSA02J-153X	MG R	15kΩ 1/10W J	
R1262	NRSA02J-183X	MG R	18kΩ 1/10W J	
R1263	NRSA02J-333X	MG R	33kΩ 1/10W J	
R1264	NRSA02J-223X	MG R	22kΩ 1/10W J	
R1265	NRSA02J-473X	MG R	47kΩ 1/10W J	
R1266	NRSA02J-333X	MG R	33kΩ 1/10W J	
R1267	NRSA02J-472X	MG R	4.7kΩ 1/10W J	
R1268	NRSA02J-332X	MG R	3.3kΩ 1/10W J	
R1301	NRSA02J-681X	MG R	680Ω 1/10W J	
R1302	NRSA02J-102X	MG R	1kΩ 1/10W J	
R1303	NRSA02J-273X	MG R	27kΩ 1/10W J	
R1304-06	NRSA02J-101X	MG R	100Ω 1/10W J	
R1307-10	NRSA02J-102X	MG R	1kΩ 1/10W J	
R1311	NRSA02J-333X	MG R	33kΩ 1/10W J	
R1312	NRSA02J-103X	MG R	10kΩ 1/10W J	
R1313	NRSA02J-102X	MG R	1kΩ 1/10W J	
R1314	NRSA02J-103X	MG R	10kΩ 1/10W J	
R1315	NRSA02J-222X	MG R	2.2kΩ 1/10W J	
R1316	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	
R1321-22	NRSA02J-101X	MG R	100Ω 1/10W J	
R1401-02	NRSA02J-103X	MG R	10kΩ 1/10W J	
R1403	NRSA02J-102X	MG R	1kΩ 1/10W J	
R1405	NRSA02J-102X	MG R	1kΩ 1/10W J	
R1406	NRSA02J-183X	MG R	18kΩ 1/10W J	
R1407	NRSA02J-223X	MG R	22kΩ 1/10W J	
R1422	NRSA02J-562X	MG R	5.6kΩ 1/10W J	
R1423	NRSA02J-221X	MG R	220Ω 1/10W J	
R1424	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	
R1425-26	NRSA02J-333X	MG R	33kΩ 1/10W J	
R1427	NRSA02J-103X	MG R	10kΩ 1/10W J	
R1429	NRZ0032-2941X	MF R	2940Ω 1/10W±0.5%	
R1430	NRSA02J-103X	MG R	10kΩ 1/10W J	
R1431	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	
R1432	QRE121J-2R7Y	C R	2.7Ω 1/2W J	
R1433	QRE121J-4R7Y	C R	4.7Ω 1/2W J	
R1434	NRSA02J-473X	MG R	47kΩ 1/10W J	
R1435	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	
R1436	NRVA02D-113X	MF R	11kΩ 1/10W D	
R1437	NRVA02D-103X	MF R	10kΩ 1/10W D	
R1440	QRG01GJ-221	OM R	220Ω 1W J	

△ Symbol No.	Part No.	Part Name	Description	Local
RESISTOR				
R1446	QRK126J-1R0X	C R	1.0Ω 1/2W J	
R1451	NRSA02J-272X	MG R	2.7kΩ 1/10W J	
R1452	NRSA02J-563X	MG R	56kΩ 1/10W J	
R1453	NRSA02J-183X	MG R	18kΩ 1/10W J	
R1454	NRSA02J-103X	MG R	10kΩ 1/10W J	
R1461	NRVA02D-103X	MF R	10kΩ 1/10W D	
R1462	NRSA02J-183X	MG R	18kΩ 1/10W J	
R1463-64	NRSA02J-221X	MG R	220Ω 1/10W J	
R1465	NRSA02J-331X	MG R	330Ω 1/10W J	
R1467	NRSA02J-333X	MG R	33kΩ 1/10W J	
R1468	NRSA02J-102X	MG R	1kΩ 1/10W J	
R1469	NRSA02J-222X	MG R	2.2kΩ 1/10W J	
R1470	NRSA02J-102X	MG R	1kΩ 1/10W J	
R1474	NRSA02J-102X	MG R	1kΩ 1/10W J	
R1475	NRSA02J-563X	MG R	56kΩ 1/10W J	
R1476	NRSA02J-273X	MG R	27kΩ 1/10W J	
R1477	NRSA02J-184X	MG R	180kΩ 1/10W J	
R1478	QRE121J-103Y	C R	10kΩ 1/2W J	
R1479	NRSA02J-102X	MG R	1kΩ 1/10W J	
R1480	QRE121J-222Y	C R	2.2kΩ 1/2W J	
R1481	NRSA02J-102X	MG R	1kΩ 1/10W J	
R1482	QRE121J-183Y	C R	18kΩ 1/2W J	
R1483	QRL039J-150	OM R	15Ω 3W J	
R1501	NRSA02J-822X	MG R	8.2kΩ 1/10W J	
R1502	NRSA02J-621X	MG R	620Ω 1/10W J	
R1503	NRSA02J-272X	MG R	2.7kΩ 1/10W J	
R1504	NRSA02J-103X	MG R	10kΩ 1/10W J	
R1505	NRSA02J-104X	MG R	100kΩ 1/10W J	
R1508	NRSA02J-823X	MG R	82kΩ 1/10W J	
R1521	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	
R1522	NRSA02J-123X	MG R	12kΩ 1/10W J	
R1523	QRE121J-103Y	C R	10kΩ 1/2W J	
R1524-25	QRG029J-182	OM R	1.8kΩ 2W J	
R1526	QRE121J-220Y	C R	22Ω 1/2W J	
R1527	QRG029J-103	OM R	10kΩ 2W J	
R1528	QRE121J-471Y	C R	470Ω 1/2W J	
R1571	QRF104K-2R2	UNF R	2.2Ω 10W K	
R1572	QRE121J-472Y	C R	4.7kΩ 1/2W J	
R1573	NRSA02J-152X	MG R	1.5kΩ 1/10W J	
R1574	QRE121J-223Y	C R	22kΩ 1/2W J	
R1575	NRSA02J-222X	MG R	2.2kΩ 1/10W J	
R1576	NRSA02J-102X	MG R	1kΩ 1/10W J	
R1581	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	
R1582	NRSA02J-682X	MG R	6.8kΩ 1/10W J	
R1583	NRSA02J-103X	MG R	10kΩ 1/10W J	
R1594	NRSA02J-332X	MG R	3.3kΩ 1/10W J	
R1651	NRSA02J-822X	MG R	8.2kΩ 1/10W J	
R1652	NRSA02J-392X	MG R	3.9kΩ 1/10W J	
R1653	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	
R1654	NRSA02J-392X	MG R	3.9kΩ 1/10W J	
R1655	NRSA02J-104X	MG R	100kΩ 1/10W J	
R1690-91	QRN141J-2R2Y	C R	2.2Ω 1/4W J	
R1701	NRSA02J-103X	MG R	10kΩ 1/10W J	
R1703-04	NRSA02J-102X	MG R	1kΩ 1/10W J	
R1705-08	NRSA02J-221X	MG R	220Ω 1/10W J	
R1709	NRSA02J-682X	MG R	6.8kΩ 1/10W J	
R1710	QRB089J-682	NETW.R	6.8Ω	
R1711	NRSA02J-473X	MG R	47kΩ 1/10W J	
R1712	NRSA02J-102X	MG R	1kΩ 1/10W J	
R1713-14	NRSA02J-332X	MG R	3.3kΩ 1/10W J	
R1715	NRSA02J-472X	MG R	4.7kΩ 1/10W J	
R1717	NRSA02J-473X	MG R	47kΩ 1/10W J	
R1720	NRSA02J-102X	MG R	1kΩ 1/10W J	
R1721	NRSA02J-392X	MG R	3.9kΩ 1/10W J	
R1722	NRSA02J-102X	MG R	1kΩ 1/10W J	
R1723	NRSA02J-392X	MG R	3.9kΩ 1/10W J	
R1724	NRSA02J-102X	MG R	1kΩ 1/10W J	
R1725	NRSA02J-392X	MG R	3.9kΩ 1/10W J	

△ Symbol No. Part No. Part Name Description Local

RESISTOR

R1727	NRSA02J-472X	MG R	4.7kΩ 1/10W J
R1729	NRSA02J-124X	MG R	120kΩ 1/10W J
R1730	NRSA02J-683X	MG R	68kΩ 1/10W J
R1731	NRSA02J-563X	MG R	56kΩ 1/10W J
R1732	NRSA02J-223X	MG R	22kΩ 1/10W J
R1733	NRSA02J-103X	MG R	10kΩ 1/10W J
R1734	NRSA02J-472X	MG R	4.7kΩ 1/10W J
R1735	NRSA02J-103X	MG R	10kΩ 1/10W J
R1736	NRSA02J-153X	MG R	15kΩ 1/10W J
R1737	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
R1738	NRSA02J-821X	MG R	820Ω 1/10W J
R1739	NRSA02J-471X	MG R	470Ω 1/10W J
R1740-44	NRSA02J-221X	MG R	220Ω 1/10W J
R1745	NRSA02J-101X	MG R	100Ω 1/10W J
R1746	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
R1747-48	NRSA02J-102X	MG R	1kΩ 1/10W J
R1749	NRSA02J-682X	MG R	6.8kΩ 1/10W J
R1750	NRSA02J-101X	MG R	100Ω 1/10W J
R1751	NRSA02J-682X	MG R	6.8kΩ 1/10W J
R1752	NRSA02J-102X	MG R	1kΩ 1/10W J
R1754-56	NRSA02J-102X	MG R	1kΩ 1/10W J
R1757	NRSA02J-682X	MG R	6.8kΩ 1/10W J
R1761	NRSA02J-103X	MG R	10kΩ 1/10W J
R1762	NRSA02J-331X	MG R	330Ω 1/10W J
R1763	NRSA02J-471X	MG R	470Ω 1/10W J
R1764	NRSA02J-472X	MG R	4.7kΩ 1/10W J
R1765-66	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
R1771	NRSA02J-683X	MG R	68kΩ 1/10W J
R1772	NRSA02J-124X	MG R	120kΩ 1/10W J
R1773-74	NRSA02J-103X	MG R	10kΩ 1/10W J
R1775	NRSA02J-102X	MG R	1kΩ 1/10W J
R1777	NRSA02J-102X	MG R	1kΩ 1/10W J
R1778	NRSA02J-103X	MG R	10kΩ 1/10W J
R1779	NRSA02J-473X	MG R	47kΩ 1/10W J
R1813	NRSA02J-102X	MG R	1kΩ 1/10W J
△ R1901	QRF154K-2R2	UNF R	2.2 Ω 15W K
R1902	QRL039J-683	OM R	68kΩ 3W J
R1903	QRF154J-121	UNF R	120 Ω 15W J
R1921	QRE121J-681Y	C R	680Ω 1/2W J
R1922	QRM059K-R10	MP R	0.1 Ω 5W K
R1923	QRT029J-1R2	MF R	1.2Ω 2W J
R1924	NRSA02J-103X	MG R	10kΩ 1/10W J
R1925	QRE121J-102Y	C R	1kΩ 1/2W J
R1926	QRE121J-182Y	C R	1.8kΩ 1/2W J
R1928	QRL029J-823	OM R	82kΩ 2W J
R1929	QRE121J-332Y	C R	3.3kΩ 1/2W J
R1930	QRL029J-823	OM R	82kΩ 2W J
R1932-33	QRE121J-474Y	C R	470kΩ 1/2W J
R1934	QRN141J-472Y	C R	4.7kΩ 1/4W J
R1935	QRE121J-182Y	C R	1.8kΩ 1/2W J
R1936	QRK126J-6R8X	C R	6.8Ω 1/2W J
R1941	QRE121J-152Y	C R	1.5kΩ 1/2W J
R1942	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
R1943	NRSA02J-472X	MG R	4.7kΩ 1/10W J
R1944	QRE121J-332Y	C R	3.3kΩ 1/2W J
R1946	NRSA02J-153X	MG R	15kΩ 1/10W J
R1947	NRSA02J-473X	MG R	47kΩ 1/10W J
R1970	QRT029J-2R2	MF R	2.2Ω 2W J
R1971	NRSA02J-223X	MG R	22kΩ 1/10W J
R1972	QRL029J-331	OM R	330Ω 2W J
R1973	NRSA02J-223X	MG R	22kΩ 1/10W J
R1974	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
R1975	NRSA02J-562X	MG R	5.6kΩ 1/10W J
R1976	QRT029J-2R2	MF R	2.2Ω 2W J
R1977	QRG029J-183	OM R	18kΩ 2W J
R1978	QRE121J-152Y	C R	1.5kΩ 1/2W J
R1979	QRE121J-181Y	C R	180Ω 1/2W J
R1980	NRSA02J-821X	MG R	820Ω 1/10W J
R1981	NRSA02J-222X	MG R	2.2kΩ 1/10W J
R1982	NRSA02J-822X	MG R	8.2kΩ 1/10W J
R1983	QRL039J-120	OM R	12Ω 3W J
R1984	QRE141J-0R0	C R	0.0Ω 1/4W J

△ Symbol No. Part No. Part Name Description Local

RESISTOR

R1985	NRSA02J-223X	MG R	22kΩ 1/10W J
R1988	QRG039J-181	OM R	180 Ω 3W J
△ R1991	QRZ0057-825	C R	8.2MΩ 1W J
R1992	QRX016J-1R5	MF R	1.5Ω 1W J

CAPACITOR

C1001	QETN1HM-4752	E CAP.	4.7μF 50V M
C1002	QETN1CM-2282	E CAP.	2200μF 16V H
C1003	QETN1HM-1062	E CAP.	10μF 50V M
C1004	QETN1CM-1072	E CAP.	100μF 16V M
C1005-07	NCB21HK-103X	C CAP.	0.01μF 50V K
C1015	NCB21HK-222X	C CAP.	2200pF 50V K
C1151-52	NCB21HK-103X	C CAP.	0.01μF 50V K
C1201	QETN1CM-1072	E CAP.	100μF 16V M
C1202	QFV71HJ-104Z	MF CAP.	0.1μF 50V J
C1203	QETN1HM-1052	E CAP.	1μF 50V M
C1204	QFV71HJ-104Z	MF CAP.	0.1μF 50V J
C1205	QETN1HM-4752	E CAP.	4.7μF 50V M
C1206	NCB21HK-103X	C CAP.	0.01μF 50V K
C1208	QETN1CM-1072	E CAP.	100μF 16V M
C1209	NCB21HK-103X	C CAP.	0.01μF 50V K
C1210	QETN1HM-1062	E CAP.	10μF 50V M
C1212	QETN1HM-1062	E CAP.	10μF 50V M
C1213	QETN1AM-2272	E CAP.	220μF 10V H
C1214	QCS31HJ-221	C CAP.	220pF 50V J
C1235	NCB21HK-222X	C CAP.	2200pF 50V K
C1251	NDC21HJ-271X	C CAP.	270pF 50V J
C1252-53	NCB21HK-103X	C CAP.	0.01μF 50V K
C1254	NDC21HJ-151X	C CAP.	150pF 50V J
C1255	QENC1EM-1062	BP E CAP.	10μF 25V M
C1256	NDC21HJ-271X	C CAP.	270pF 50V J
C1257	QETN1HM-1062	E CAP.	10μF 50V M
C1258	NCB21HK-103X	C CAP.	0.01μF 50V K
C1259	NCB21EK-104X	C CAP.	0.1μF 25V K
C1301	QFLC1HJ-823Z	M CAP.	0.082μF 50V J
C1302	NCB21HK-103X	C CAP.	0.01μF 50V K
C1303	NDC21HJ-120X	C CAP.	12pF 50V J
C1304-06	QFLC1HJ-104Z	M CAP.	0.1μF 50V J
C1307	QETN1HM-2252	E CAP.	2.2μF 50V M
C1308	QFLC1HJ-103Z	M CAP.	0.01μF 50V J
C1309	QETN1HM-4752	E CAP.	4.7μF 50V M
C1310	NCB21HK-103X	C CAP.	0.01μF 50V K
C1311	QETN1CM-1072	E CAP.	100μF 16V M
C1312	QETN1CM-2272	E CAP.	220μF 16V M
C1313-15	NCB21HK-103X	C CAP.	0.01μF 50V K
C1317	NDC21HJ-2R0X	C CAP.	2.0pF 50V J
C1321-22	NCS21HJ-101X	C CAP.	100pF 50V J
C1420	QFLC1HJ-152Z	M CAP.	1500pF 50V J
C1422	QFLC1HJ-102Z	M CAP.	1000pF 50V J
C1423	QFLC2AJ-393Z	M CAP.	0.039μF 100V J
C1425	QFLC1HJ-104Z	M CAP.	0.1μF 50V J
C1426	QCS32HJ-180Z	C CAP.	18pF 500V J
C1427	QETN1VM-108	E CAP.	1000μF 35V M
C1428	QETN1VM-1072	E CAP.	100μF 35V M
C1429	QFLC1HJ-152Z	M CAP.	1500pF 50V J
C1430	QFLC2AJ-104Z	M CAP.	0.1μF 100V J
C1434	QETN1CM-2272	E CAP.	220μF 16V M
C1435	QRN143J-0R0X	C R	0.0Ω 1/4W J
C1436	QFLC1HJ-104Z	M CAP.	0.1μF 50V J
C1451	QETN1HM-1062	E CAP.	10μF 50V M
C1462	QFLC1HJ-333Z	E CAP.	0.033μF 50V J
C1463	QEM61EK-2252	E CAP.	2.2μF 25V K
C1464	QFV71HJ-184Z	MF CAP.	0.18μF 50V J
C1465	QFLC1HJ-823Z	M CAP.	0.082μF 50V J
C1466	QETN1CM-1082	E CAP.	1000μF 16V M
C1467	QFLC1HJ-104Z	M CAP.	0.1μF 50V J
C1469	QFLC1HJ-333Z	M CAP.	0.033μF 50V J
C1471	NDC21HJ-680X	C CAP.	680pF 50V J
C1472	NCS21HJ-121X	C CAP.	120pF 50V J
C1473	NCS21HJ-561X	C CAP.	560pF 50V J
C1501	NCB21HK-103X	C CAP.	0.01μF 50V K

Symbol No.	Part No.	Part Name	Description	Local
CAPACITOR				
C1502	QETN1HM-1052	E CAP.	1μF 50V M	
C1503	QETN1CM-1082	E CAP.	1000μF 16V M	
C1504-06	NCB21HK-103X	C CAP.	0.01μF 50V K	
C1507	QFLC1HJ-103Z	M CAP.	0.01μF 50V J	
C1508	QETN1AM-107Z	E CAP.	100μF 10V M	
C1509	NCB21HK-103X	C CAP.	0.01μF 50V K	
C1521	QCB32HK-151Z	C CAP.	150pF 500V K	
C1522	QCB32HK-331Z	C CAP.	330pF 500V K	
C1523	QEHRC2M-105Z	E CAP.	1μF 160V M	
Δ C1524	QFZ0200-352	MPP CAP.	3500pF 1.5kVH ±3%	
Δ C1525	QFZ0200-123	MPP CAP.	0.012μF 1.5kVH ±3%	
Δ C1526	QFP32GJ-183	PP CAP.	0.018μF 400V J	
Δ C1527	QFZ0199-514	MPP CAP.	0.51μF 250V J	
C1528	QEZ0195-475Z	E CAP.	4.7μF 50V M	
C1529	QEHRC2M-475Z	E CAP.	4.7μF 250V M	
C1530	QCB32HK-561Z	C CAP.	560pF 500V K	
C1551	QCB32HK-561Z	C CAP.	560pF 500V K	
C1552	QETM1EM-228	E CAP.	2200μF 25V M	
C1553	QCB32HK-561Z	C CAP.	560pF 500V K	
C1554	QETM1EM-228	E CAP.	2200μF 25V M	
C1557	QETN2EM-106Z	E CAP.	10μF 250V M	
C1571	QETN1AM-107Z	E CAP.	100μF 10V M	
C1572	QETN1EM-476Z	E CAP.	47μF 25V M	
C1581	QFLC1HJ-104Z	M CAP.	0.1μF 50V J	
C1651-52	QETN1HM-106Z	E CAP.	10μF 50V M	
C1680	QFV71HJ-224Z	MF CAP.	0.22μF 50V J	
C1681	QETM1HM-228	E CAP.	2200μF 50V M	
C1682-83	QFV71HJ-224Z	MF CAP.	0.22μF 50V J	
C1686	QFV71HJ-224Z	MF CAP.	0.22μF 50V J	
C1687-89	QETN1HM-107Z	E CAP.	100μF 50V M	
C1694	QETN1HM-335Z	E CAP.	3.3μF 50V M	
C1701	QETN1CM-227Z	E CAP.	220μF 16V M	
C1702	QFLC1HJ-104Z	M CAP.	0.1μF 50V J	
C1703-07	QETN1HM-106Z	E CAP.	10μF 50V M	
C1711	QFLC1HJ-104Z	M CAP.	0.1μF 50V J	
C1712	QEHRC1CM-107Z	E CAP.	100μF 16V M	
C1714	QFLC1HJ-104Z	M CAP.	0.1μF 50V J	
C1715	QFLC1HJ-473Z	M CAP.	0.047μF 50V J	
C1718	NCS21HJ-271X	C CAP.	270pF 50V J	
C1719	NCB21HK-102X	C CAP.	1000pF 50V K	
C1721	NCB21HK-272X	C CAP.	2700pF 50V K	
C1724	NDC21HJ-680X	C CAP.	68pF 50V J	
C1725	NDC21HJ-560X	C CAP.	56pF 50V J	
C1726	NCS21HJ-101X	C CAP.	100pF 50V J	
C1731	QFLC1HJ-103Z	M CAP.	0.01μF 50V J	
C1732	QFLC1HJ-473Z	M CAP.	0.047μF 50V J	
C1801	QETN1CM-107Z	E CAP.	100μF 16V M	
Δ C1904	QCZ9054-102	C CAP.	1000pFAC250V Z	
Δ C1905	QCZ9054-102	C CAP.	1000pFAC250V Z	
Δ C1906	QCZ9054-102	C CAP.	1000pFAC250V Z	
Δ C1907	QCZ9054-102	C CAP.	1000pFAC250V Z	
Δ C1909	QEZ0371-337	E CAP.	330μF 400V M	
C1921	QCZ0325-102	C CAP.	1000pF 2000V K	
C1922	NCS21HJ-471X	C CAP.	470pF 50V J	
C1924	QETN1VM-476Z	E CAP.	47μF 35V M	
C1925	QFLC1HJ-102Z	M CAP.	1000pF 50V J	
C1926	QFLC1HJ-222Z	M CAP.	2200pF 50V J	
C1929	QCB32HK-103	C CAP.	0.01μF 500V K	
C1930	QCZ0122-561	C CAP.	560pF 2kV K	
Δ C1942	QEZ0203-227	E CAP.	220μF 160V M	
C1943	QEZ0203-107	E CAP.	100μF 160V M	
C1944	QCS32HJ-820Z	C CAP.	82pF 500V J	
C1945	QEZ0257-228	E CAP.	2200μF 25V M	
C1947	QCB32HK-561Z	C CAP.	560pF 500V K	
C1948	QEHQ1HM-228	E CAP.	2200μF 50V M	
C1949	NCS21HJ-471X	C CAP.	470pF 50V J	
C1952	QEHRIEM-108Z	E CAP.	1000μF 25V M	
C1971	QEHRIHM-106Z	E CAP.	10μF 50V M	
C1972	QEHRIAM-227Z	E CAP.	220μF 10V M	
C1973	QEHRIEM-227Z	E CAP.	220μF 25V M	
C1974	QETN1CM-227Z	E CAP.	220μF 16V M	
C1975	QEHRIEM-227Z	E CAP.	220μF 16V M	
C1976	QETN1CM-108Z	E CAP.	1000μF 16V M	

Symbol No.	Part No.	Part Name	Description	Local
CAPACITOR				
C1977	QETN1CM-477Z	E CAP.	470μF 16V M	
C1978	QETN1AM-107Z	E CAP.	100μF 10V M	
C1979-80	QEHRIEM-107Z	E CAP.	100μF 16V M	
C1981	QEHRIHM-106Z	E CAP.	10μF 50V M	
C1985	QETN1CM-107Z	E CAP.	100μF 16V M	
Δ C1991	QCZ9079-471	C CAP.	470pFAC250V K	
Δ C1992	QCZ9079-471	C CAP.	470pFAC250V K	
Δ C1993	QCZ9079-222	C CAP.	2200pFAC250V K	

TRANSFORMER

Symbol No.	Part No.	Part Name	Description	Local
T1251	CE41360-001	DELAY LINE		
T1521	CE42034-002	H.DRIVE TRANSF.		
Δ T1522	QHQ0040-001	FBT		
Δ T1921	CETS114-001JA	SW TRANSF.		

COIL

Symbol No.	Part No.	Part Name	Description	Local
L1001	QQL05BK-8R2Z	COIL		8.2μH
L1003	QQL05BK-8R2Z	COIL		8.2μH
L1201	QQL05BK-4R7Z	COIL		4.7μH
L1202	QQL244K-4R7Z	COIL		4.7μH
L1301-02	QQL244K-470Z	COIL		47μH
L1451	QQL244K-4R7Z	COIL		4.7μH
L1452	QQL244K-470Z	COIL		47μH
L1521	QQL2016-821	CHOKE COIL		
L1522	CELL013-003	LINEARITY COIL		
L1701	QQL244K-8R2Z	COIL		8.2μH
L1702	QQL244K-4R7Z	COIL		4.7μH
L1703	QQL244K-100Z	COIL		10μH
L1941	QQL42AK-820Z	COIL		82μH
L1942	QQL42AK-220Z	COIL		22μH
L1943	QQL42AK-820Z	COIL		82μH
L1944	QQL42AK-220Z	COIL		22μH

DIODE

Symbol No.	Part No.	Part Name	Description	Local
D1001	MA3330/L/-X	ZENER DIODE		
D1201	MA3030/H/-X	ZENER DIODE		
D1203	1SS353-X	SI.DIODE		
D1421	MA3082/M/-X	ZENER DIODE		
D1423	1SR124-400A-T2	SI.DIODE		
D1452	MA3220/M/-X	ZENER DIODE		
D1453	1SS353-X	SI.DIODE		
D1461	MA3039/H/-X	ZENER DIODE		
D1462	MA3120/M/-X	ZENER DIODE		
D1501	MA3091/M/-X	ZENER DIODE		
D1521	RH3G-F1	SI.DIODE		
D1522	RU30-F1	SI.DIODE		
D1523	RGPI0J-5025-T3	SI.DIODE		
D1551-52	RU3AM-LFC4	SI.DIODE		
D1553	RH1S-T3	SI.DIODE		
D1571	MA3075/M/-X	CHIP ZENER DIODE		
D1582	RGPI0J-5025-T3	SI.DIODE		
D1701-03	1SS353-X	SI.DIODE		
D1706-10	MA3082/M/-X	ZENER DIODE		
D1713-14	1SS353-X	SI.DIODE		
D1716-17	1SS353-X	SI.DIODE		
D1719	1SS353-X	SI.DIODE		
D1801	1SS353-X	SI.DIODE		
Δ D1901	RBV-406M	BRIDGE DIODE		
D1921	RMPG06D-T2	SI.DIODE		
D1922	1SS353-X	SI.DIODE		
D1923	MA3180/M/-X	ZENER DIODE		
D1924	1SS353-X	SI.DIODE		
D1926	RU1C-LFC4	SI.DIODE		
D1928	1SS353-X	SI.DIODE		
D1929	MA3150/M/-X	ZENER DIODE		
D1930	RMPG06D-T2	SI.DIODE		
D1931	1SS353-X	SI.DIODE		
D1941	RU30A-F1	SI.DIODE		
D1942-43	SF6L20U	SI.DIODE		
D1944	MA3068/M/-X	ZENER DIODE		
D1945	RU30Y-F1	SI.DIODE		

△ Symbol No. Part No. Part Name Description Local

DIODE

D1981-85	1S5353-X	SI.DIODE
D1986	MA3047/L/-X	ZENER DIODE
D1987	1S5353-X	SI.DIODE
D1988	MA3051/M/-X	ZENER DIODE
D1989	1SR124-400A-T2	SI.DIODE
D1990	1S5353-X	SI.DIODE

TRANSISTOR

Q1001	DTC124EKA-X	DIGI. TRANSISTOR	
Q1151	2SC5083/L/-T	SI. TRANSISTOR	
Q1201-02	2SA1037AK/QR/-X	SI. TRANSISTOR	
Q1235	2SC2412K/QR/-X	SI. TRANSISTOR	
Q1251	2SA1037AK/QR/-X	SI. TRANSISTOR	
Q1252-55	2SC2412K/QR/-X	SI. TRANSISTOR	
Q1301	2SC2412K/QR/-X	SI. TRANSISTOR	
Q1422-24	2SC2412K/QR/-X	SI. TRANSISTOR	
Q1451-52	2SC2412K/QR/-X	SI. TRANSISTOR	
Q1461	2SC2412K/QR/-X	SI. TRANSISTOR	
Q1462	2SD1408/OY/-LB	SI. TRANSISTOR	
Q1521	BSN274	F. E. T.	
△ Q1522	2SD2539-LB	SI. TRANSISTOR	H. OUT
Q1571	2SA949/Y/Z1	SI. TRANSISTOR	
Q1651-52	DTC323TK-X	DIGI. TRANSISTOR	
Q1653	2SA1037AK/QR/-X	SI. TRANSISTOR	
Q1701	2SA1037AK/QR/-X	SI. TRANSISTOR	
Q1702-03	2SC2412K/QR/-X	SI. TRANSISTOR	
Q1705	2SC2412K/QR/-X	SI. TRANSISTOR	
Q1921	2SA1037AK/QR/-X	SI. TRANSISTOR	
Q1941-42	2SC2412K/QR/-X	SI. TRANSISTOR	
Q1971	2SB941A/P	SI. TRANSISTOR	
Q1972	2SC2412K/QR/-X	SI. TRANSISTOR	
Q1973	2SA966/OY/-T	SI. TRANSISTOR	
Q1974	2SC2412K/QR/-X	SI. TRANSISTOR	
Q1981	2SA1037AK/QR/-X	SI. TRANSISTOR	

IC

IC1201	TB1227BN	I. C. (DIGI-OTHER)	
IC1251	M51494L	I. C. (MONO-ANA)	
IC1421	LA7840	I. C. (MONO-ANA)	
IC1451	TA8859CP	I. C. (MONO-ANA)	
IC1681	AN5275	I. C. (MONO-ANA)	
IC1701	M37204MC-C49SP	I. C.	(SERVICE)
IC1702	AT24C08-S33MS6	I. C.	
IC1703	L78L05E-NA	I. C. (MONO-ANA)	
△ IC1921	STR-F6655	I. C. (HYBRID)	
△ IC1941	SE135N	I. C. (HYBRID)	
IC1971	BA17812T	I. C.	
IC1972	BA17809T	I. C. (MONO-ANA)	
IC1973	BA17805T	I. C.	
IC1974	AN78L05-T	I. C. (MONO-ANA)	
IC1975	BA17809T	I. C. (MONO-ANA)	

OTHERS

△ CN1007	CHC108N-25T-A	FFC CONNECTOR	
△ CP1651	ICP-N50-Y	I. C. PROTECT	
△ CP1942	ICP-N75-Y	I. C. PROTECT	
△ CP1945	ICP-N75-Y	I. C. PROTECT	
△ EF1201	CE42142-222Z	EMI FILTER	
△ FR1466	QRZ9009-2R2	F R	2.2 Ω 1/2W J
△ FR1551	QRZ9017-4R7	F R	4.7 Ω 1/4W J
△ FR1552	QRZ9021-1R8	F R	1.8 Ω 1W J
△ FR1553	QRZ9021-1R8	F R	1.8 Ω 1W J
△ FR1554	QRJ149J-150	C R	15Ω 1/4W J
△ FR1555	QRZ9021-1R0	F R	1 Ω 1W J
△ FR1973	QRT029J-3R3	MF R	3.3Ω 2W J
K1002	CE41433-001Z	BEADS CORE	
K1101	CE41433-001Z	BEADS CORE	
K1201-02	CE41433-001Z	BEADS CORE	
K1421	CE41433-001Z	BEADS CORE	
K1501	CE41433-001Z	BEADS CORE	
K1921	QQR0872-001Y	FERRITE BEADS	

△ Symbol No. Part No. Part Name Description Local

OTHERS

K1923-24	CE41433-001Z	BEADS CORE	
K1941	QQR0872-001Y	FERRITE BEADS	
K1943-44	CE42050-001Z	CORE	
△ PC1921	TLP721F(GR)	I. C. (PH. COUPLER)	
△ TH1901	QAD0101-9R0	P.THERMISTOR	
TU1001	QAU0095-001	U/V TUNER	
W1004	QRE141J-OR0Y	C R	0.0Ω 1/4W J
W1114	NRSA02J-OR0X	MG R	0.0Ω 1/10W J
W1195	NRSA02J-OR0X	MG R	0.0Ω 1/10W J
W1384	NRSA02J-OR0X	MG R	0.0Ω 1/10W J
W1387	QRE141J-OR0Y	C R	0.0Ω 1/4W J
W1390-91	NRSA02J-OR0X	MG R	0.0Ω 1/10W J
W1395	NRSA02J-OR0X	MG R	0.0Ω 1/10W J
W1402	NRSA02J-OR0X	MG R	0.0Ω 1/10W J
W1406	QRE141J-822Y	C R	8.2kΩ 1/4W J
W1428	NRSA02J-OR0X	MG R	0.0Ω 1/10W J
W1436	NRSA02J-OR0X	MG R	0.0Ω 1/10W J
W1450	QRE141J-OR0Y	C R	0.0Ω 1/4W J
W1468-69	NRSA02J-OR0X	MG R	0.0Ω 1/10W J
W1471	NRSA02J-OR0X	MG R	0.0Ω 1/10W J
W1473-74	NRSA02J-OR0X	MG R	0.0Ω 1/10W J
W1481	NRSA02J-OR0X	MG R	0.0Ω 1/10W J
W1484	NRSA02J-OR0X	MG R	0.0Ω 1/10W J
W1512	QRE141J-OR0Y	C R	0.0Ω 1/4W J
W1527	NRSA02J-OR0X	MG R	0.0Ω 1/10W J
W1531	NRSA02J-OR0X	MG R	0.0Ω 1/10W J
W1533	NRSA02J-OR0X	MG R	0.0Ω 1/10W J
W1543	NRSA02J-OR0X	MG R	0.0Ω 1/10W J
W1548	NRSA02J-OR0X	MG R	0.0Ω 1/10W J
W1554	NRSA02J-OR0X	MG R	0.0Ω 1/10W J
W1558	NRSA02J-OR0X	MG R	0.0Ω 1/10W J
W1560	NRSA02J-OR0X	MG R	0.0Ω 1/10W J
W1568-69	NRSA02J-OR0X	MG R	0.0Ω 1/10W J
W1586-87	NRSA02J-OR0X	MG R	0.0Ω 1/10W J
W1589-92	NRSA02J-OR0X	MG R	0.0Ω 1/10W J
W1608	NRSA02J-OR0X	MG R	0.0Ω 1/10W J
W1623-24	NRSA02J-OR0X	MG R	0.0Ω 1/10W J
W1628	NRSA02J-OR0X	MG R	0.0Ω 1/10W J
W1636	NRSA02J-OR0X	MG R	0.0Ω 1/10W J
W1650	QRE141J-OR0Y	C R	0.0Ω 1/4W J
W1652-53	NRSA02J-OR0X	MG R	0.0Ω 1/10W J
W1656	NRSA02J-OR0X	MG R	0.0Ω 1/10W J
W1668-71	NRSA02J-OR0X	MG R	0.0Ω 1/10W J
W1673-75	NRSA02J-OR0X	MG R	0.0Ω 1/10W J
W1689	NRSA02J-OR0X	MG R	0.0Ω 1/10W J
W1691-92	NRSA02J-OR0X	MG R	0.0Ω 1/10W J
W1696-99	NRSA02J-OR0X	MG R	0.0Ω 1/10W J
W1700	NRSA02J-OR0X	MG R	0.0Ω 1/10W J
W1705-06	NRSA02J-OR0X	MG R	0.0Ω 1/10W J
W1712	NRSA02J-OR0X	MG R	0.0Ω 1/10W J
W1715	NRSA02J-OR0X	MG R	0.0Ω 1/10W J
W1719	NRSA02J-OR0X	MG R	0.0Ω 1/10W J
W1721-22	NRSA02J-OR0X	MG R	0.0Ω 1/10W J
W1725	NRSA02J-OR0X	MG R	0.0Ω 1/10W J
W1727-29	NRSA02J-OR0X	MG R	0.0Ω 1/10W J
W1731	NRSA02J-OR0X	MG R	0.0Ω 1/10W J
W1736-37	NRSA02J-OR0X	MG R	0.0Ω 1/10W J
W1739	NRSA02J-OR0X	MG R	0.0Ω 1/10W J
W1741-43	NRSA02J-OR0X	MG R	0.0Ω 1/10W J
W1746-47	NRSA02J-OR0X	MG R	0.0Ω 1/10W J
W1751-56	NRSA02J-OR0X	MG R	0.0Ω 1/10W J
X1301	QAX0354-001	CRYSTAL	
X1701	CST8.00MTW	CER. RESONATOR	
Y1151	NRSA02J-OR0X	MG R	0.0Ω 1/10W J
Y1231	NRSA02J-OR0X	MG R	0.0Ω 1/10W J
Y1505	NRSA02J-OR0X	MG R	0.0Ω 1/10W J
Y1701-02	NRSA02J-OR0X	MG R	0.0Ω 1/10W J
Y1801-03	NRSA02J-OR0X	MG R	0.0Ω 1/10W J
Y1901-02	NRSA02J-OR0X	MG R	0.0Ω 1/10W J

CRT SOCKET P.W. BOARD ASS'Y (SCD-3002A)

Symbol No.	Part No.	Part Name	Description	Local
RESISTOR				
R3101-03	NRSA02J-101X	MG R	100Ω 1/10W J	
R3107-09	QRE121J-182Y	C R	1.8kΩ 1/2W J	
R3110-12	NRSA02J-181X	MG R	180Ω 1/10W J	
R3113-15	NRSA02J-470X	MG R	47Ω 1/10W J	
R3116-21	QRL029J-183	OM R	18kΩ 2W J	
R3125-27	QRZ0107-102Z	C R	1kΩ 1/2W K	
R3128-29	NRSA02J-182X	MG R	1.8kΩ 1/10W J	
R3130	QRG016J-101	OM R	100Ω 1W J	
R3131-33	NRSA02J-101X	MG R	100Ω 1/10W J	
R3135	QRZ0107-474Z	C R	470kΩ 1/2W K	
R3136	QRE121J-474Y	C R	470kΩ 1/2W J	
R3151	NRSA02J-102X	MG R	1kΩ 1/10W J	
R3152	NRSA02J-562X	MG R	5.6kΩ 1/10W J	
R3154	NRSA02J-390X	MG R	39Ω 1/10W J	
R3155	NRSA02J-222X	MG R	2.2kΩ 1/10W J	
R3301-02	NRSA02J-102X	MG R	1kΩ 1/10W J	
R3303	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	
R3304	NRSA02J-222X	MG R	2.2kΩ 1/10W J	
R3312	NRSA02J-153X	MG R	15kΩ 1/10W J	
R3313	NRSA02J-152X	MG R	1.5kΩ 1/10W J	
R3314	NRSA02J-820X	MG R	82Ω 1/10W J	
R3315	NRSA02J-221X	MG R	220Ω 1/10W J	
R3316	NRSA02J-272X	MG R	2.7kΩ 1/10W J	
R3317	NRSA02J-470X	MG R	47Ω 1/10W J	
Δ R3318	QRJ146J-100X	C R	10Ω 1/4W J	
R3319	NRSA02J-470X	MG R	47Ω 1/10W J	
R3320	NRSA02J-122X	MG R	1.2kΩ 1/10W J	
R3321	NRSA02J-390X	MG R	39Ω 1/10W J	
R3322	QRE121J-2R7Y	C R	2.7Ω 1/2W J	
R3323-24	QRE121J-563Y	C R	56kΩ 1/2W J	
R3325	NRSA02J-122X	MG R	1.2kΩ 1/10W J	
R3326	QRE121J-2R7Y	C R	2.7Ω 1/2W J	
R3327	NRSA02J-390X	MG R	39Ω 1/10W J	
R3328	QRE121J-121Y	C R	120Ω 1/2W J	
R3329	QRL029J-391	OM R	390Ω 2W J	
R3404	NRSA02J-102X	MG R	1kΩ 1/10W J	
R3405	NRSA02J-153X	MG R	15kΩ 1/10W J	
R3407	NRSA02J-102X	MG R	1kΩ 1/10W J	
R3408	NRSA02J-222X	MG R	2.2kΩ 1/10W J	
R3409	NRSA02J-102X	MG R	1kΩ 1/10W J	
R3410	NRSA02J-472X	MG R	4.7kΩ 1/10W J	
R3411	NRSA02J-392X	MG R	3.9kΩ 1/10W J	
R3412	NRSA02J-821X	MG R	820Ω 1/10W J	
R3413	NRSA02J-123X	MG R	12kΩ 1/10W J	
R3414-15	NRSA02J-681X	MG R	680Ω 1/10W J	
R3416	NRSA02J-822X	MG R	8.2kΩ 1/10W J	
R3417-19	NRSA02J-101X	MG R	100Ω 1/10W J	
R3420	NRSA02J-123X	MG R	12kΩ 1/10W J	

CAPACITOR

C3101-02	NCS21HJ-331X	C CAP.	330pF 50V J	
C3103	NCS21HK-331X	C CAP.	330pF 50V K	
C3104	QETN1CM-107Z	E CAP.	100μF 16V M	
C3105	QETN1CM-476Z	E CAP.	47μF 16V M	
C3106	QFLC1HJ-104Z	M CAP.	0.1μF 50V J	
C3107	QETN1HM-106Z	E CAP.	10μF 50V M	
C3113	QCZ0121-102	C CAP.	1000pF 3kV Z	
C3114	QETN2EM-336	E CAP.	33μF 250V M	
C3301	QETN1HM-106Z	E CAP.	10μF 50V M	
C3302	QENC1CM-336Z	BP E CAP.	33μF 16V M	
C3304	QFLC1HJ-103Z	M CAP.	0.01μF 50V J	
C3305	QETN1HM-335Z	E CAP.	3.3μF 50V M	
C3306	QETN1CM-107Z	E CAP.	100μF 16V M	
C3307	QCS31HJ-5R0Z	C CAP.	5.0pF 50V J	
C3308	QETN2CM-106Z	E CAP.	10μF 160V M	
C3309	QCB32HK-472Z	C CAP.	4700pF 500V K	
C3310	QETN2CM-106Z	E CAP.	10μF 160V M	
C3312	QCB32HK-472Z	C CAP.	4700pF 500V K	
C3314	QETN1AM-107Z	E CAP.	100μF 10V M	
C3316	QETN1AM-107Z	E CAP.	100μF 10V M	

Symbol No.	Part No.	Part Name	Description	Local
CAPACITOR				
C3317	QETN1AM-337Z	E CAP.	330μF 10V M	
C3411	NDC21HJ-680X	C CAP.	68pF 50V J	

COIL

L3101-03	QQL018K-181Z	COIL	180μH	
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DIODE

D3151	1SS353-X	SI. DIODE		
D3153-55	1SS353-X	SI. DIODE		
D3156-57	MA3047/H/-X	ZENER DIODE		
D3158	1SS353-X	SI. DIODE		
D3159	MA3047/H/-X	ZENER DIODE		
D3160	1SS353-X	SI. DIODE		
D3161	MA3047/H/-X	ZENER DIODE		
D3162	1SS353-X	SI. DIODE		
D3163	MA3150/M/-X	ZENER DIODE		
D3302-03	RH15-T3	SI. DIODE		
D3304-05	1SS353-X	SI. DIODE		
D3401-03	1SS353-X	SI. DIODE		
D3405	MA3150/M/-X	ZENER DIODE		

TRANSISTOR

Q3101-03	2SC1740S/QR/-T	SI. TRANSISTOR		
Q3104-06	2SC5147/CDE/F43	SI. TRANSISTOR		
Q3151	2SA933AS/QR/-T	SI. TRANSISTOR		
Q3152	2SC1740S/QR/-T	SI. TRANSISTOR		
Q3301	2SC2412K/QR/-X	SI. TRANSISTOR		
Q3304-05	2SC1740S/QR/-T	SI. TRANSISTOR		
Q3306	2SA933AS/QR/-T	SI. TRANSISTOR		
Q3307	2SA1837	SI. TRANSISTOR		
Q3308	2SC4793	SI. TRANSISTOR		
Q3404-07	2SC2412K/QR/-X	SI. TRANSISTOR		

OTHERS

Δ DL3301	CE41925-001	DELAY LINE		
FR3330	QRZ9021-561	F R	560 Ω	1W J
K3301-04	CE41492-001Z	CHOKE COIL		
Δ SK3001	CE42535-001J1	C.R.T. SOCKET		
W3001	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	
W3013	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	
W3021-22	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	
Y3151	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	

FRONT CONTROL P.W. BOARD ASS'Y (SCD-8001A)

Symbol No.	Part No.	Part Name	Description	Local
RESISTOR				
R8001	NRSA02J-561X	MG R	560Ω 1/10W J	
R8002	NRSA02J-821X	MG R	820Ω 1/10W J	
R8003	NRSA02J-682X	MG R	6.8kΩ 1/10W J	
R8004	NRSA02J-103X	MG R	10kΩ 1/10W J	
R8005	NRSA02J-332X	MG R	3.3kΩ 1/10W J	
R8006	NRSA02J-682X	MG R	6.8kΩ 1/10W J	
R8007	NRSA02J-103X	MG R	10kΩ 1/10W J	
R8008	NRSA02J-332X	MG R	3.3kΩ 1/10W J	
R8010	NRSA02J-153X	MG R	15kΩ 1/10W J	
R8011	NRSA02J-103X	MG R	10kΩ 1/10W J	
R8012	NRSA02J-562X	MG R	5.6kΩ 1/10W J	

Symbol No.	Part No.	Part Name	Description	Local
RESISTOR				
R8015	NRSA02J-224X	MG R	220kΩ 1/10W	J
R8016	NRSA02J-102X	MG R	1kΩ 1/10W	J
R8018-19	QRK126J-271X	C R	270Ω 1/2W	J
R8020	NRSA02J-102X	MG R	1kΩ 1/10W	J
R8021-22	NRSA02J-681X	MG R	680Ω 1/10W	J
R8061-62	QRT029J-2R2	MF R	2.2Ω 2W	J
R8401	NRSA02J-221X	MG R	220Ω 1/10W	J
R8402	NRSA02J-820X	MG R	82Ω 1/10W	J
R8403	NRSA02J-102X	MG R	1kΩ 1/10W	J
R8404	NRSA02J-224X	MG R	220kΩ 1/10W	J
R8405	NRSA02J-102X	MG R	1kΩ 1/10W	J
R8406	NRSA02J-224X	MG R	220kΩ 1/10W	J

CAPACITOR				
C8010	QETN1HM-106Z	E CAP.	10μF 50V	M
C8016	NCF21EZ-104X	C CAP.	0.1μF 25V	Z
C8017	QETN1CM-476Z	E CAP.	47μF 16V	M
C8403	QETN1HM-106Z	E CAP.	10μF 50V	M
C8404-05	QETN1HM-105Z	E CAP.	1μF 50V	M
C8684-85	QETN1VM-338	E CAP.	3300μF 35V	M

DIODE				
D8001	SLR-342DU-T16	L.E.D. (ORG)		
D8002	SLR-342VR-T16	L.E.D.		
D8004	SPR-39MVWF	L.E.D.		
D8006-08	1S5353-X	SI DIODE		
D8402-03	MA3100/M/-X	ZENER DIODE		
D8405	MA3100/M/-X	ZENER DIODE		

TRANSISTOR				
Q8001	DTC124EKA-X	DIGI. TRANSISTOR		
Q8002-03	DTA124EKA-X	DIGI. TRANSISTOR		
Q8005	2SC2412K/QR/-X	SI TRANSISTOR		
Q8006-07	DTC124EKA-X	DIGI. TRANSISTOR		

IC				
IC8001	GP1U281Q	IFR DETECT UNIT		

OTHERS				
CN8007	CM35921-B02	CDS HOLDER		
J8001	CHC108N-25T-A	L.E.D. HOLDER		
J8003	QMS3004-C01	FFC CONNECTOR		
J8004	CEMNO65-001	HEADPHONE JACK		
J8005	CEMNO72-002	PIN JACK		
PC8001	CEMNO72-003	PIN JACK		
	P1201	C.D.S.		
S8002	QSW0619-003Z	PUSH SWITCH	CH +	
S8003	QSW0619-003Z	PUSH SWITCH	TV/VIDEO	
S8004	QSW0619-003Z	PUSH SWITCH	CH -	
S8005	QSW0619-003Z	PUSH SWITCH	VOL +	
S8006	QSW0619-003Z	PUSH SWITCH	MENU	
S8007	QSW0619-003Z	PUSH SWITCH	VOL -	
W8004	NRSA02J-OROX	MG R	0.0Ω 1/10W	J
W8006-08	NRSA02J-OROX	MG R	0.0Ω 1/10W	J
W8015	NRSA02J-OROX	MG R	0.0Ω 1/10W	J
W8035-36	NRSA02J-OROX	MG R	0.0Ω 1/10W	J
W8043	NRSA02J-OROX	MG R	0.0Ω 1/10W	J

LF & POWER P.W. BOARD ASS'Y (SCD-9002A)

Symbol No.	Part No.	Part Name	Description	Local
CAPACITOR				
Δ C9901	QFZ9040-104	MF CAP.	0.1μFAC275V	M
Δ C9902	QFZ9040-474	MF CAP.	0.47μFAC275V	M
Δ C9903	QFZ9040-104	MF CAP.	0.1μFAC275V	M

COIL				
Δ LF9901	QQR0673-001	LINE FILTER		
Δ LF9902	CE41890-004	LINE FILTER		

OTHERS				
Δ F9901	CEMG002-001Z	FUSE CLIP		
Δ S9901	QMF51E2-4R0J4	FUSE		4.0A
Δ VA9901	QSP4K21-C01	PUSH SWITCH		POWER SW.
	ERZV10V621CS	VARIATOR		

AV SW P.W. BOARD ASS'Y (SCD-0S008A)

Symbol No.	Part No.	Part Name	Description	Local
RESISTOR				
R0201-03	NRSA02J-102X	MG R	1kΩ 1/10W	J
R0204	NRSA02J-681X	MG R	680Ω 1/10W	J
R0205	NRSA02J-472X	MG R	4.7kΩ 1/10W	J
R0207	NRSA02J-391X	MG R	390Ω 1/10W	J
R0208	NRSA02J-102X	MG R	1kΩ 1/10W	J
R0209	NRSA02J-103X	MG R	10kΩ 1/10W	J
R0210	NRSA02J-472X	MG R	4.7kΩ 1/10W	J
R0211	NRSA02J-821X	MG R	820Ω 1/10W	J
R0212	NRSA02J-101X	MG R	100Ω 1/10W	J
R0213	NRSA02J-102X	MG R	1kΩ 1/10W	J
R0214	NRSA02J-332X	MG R	3.3kΩ 1/10W	J
R0215	NRSA02J-182X	MG R	1.8kΩ 1/10W	J
R0216	NRSA02J-272X	MG R	2.7kΩ 1/10W	J
R0217	NRSA02J-102X	MG R	1kΩ 1/10W	J
R0221-22	NRSA02J-OROX	MG R	0.0Ω 1/10W	J
R0223	NRSA02J-152X	MG R	1.5kΩ 1/10W	J
R0224	NRSA02J-821X	MG R	820Ω 1/10W	J
R0225-27	NRSA02J-103X	MG R	10kΩ 1/10W	J
R0228	NRSA02J-153X	MG R	15kΩ 1/10W	J
R0251-53	NRSA02J-102X	MG R	1kΩ 1/10W	J
R0254	NRSA02J-681X	MG R	680Ω 1/10W	J
R0255	NRSA02J-561X	MG R	560Ω 1/10W	J
R0256	NRSA02J-681X	MG R	680Ω 1/10W	J
R0257	NRSA02J-102X	MG R	1kΩ 1/10W	J
R0258	NRSA02J-391X	MG R	390Ω 1/10W	J
R0260	NRSA02J-103X	MG R	10kΩ 1/10W	J
R0261	NRSA02J-472X	MG R	4.7kΩ 1/10W	J
R0262	NRSA02J-821X	MG R	820Ω 1/10W	J
R0301	NRSA02J-222X	MG R	2.2kΩ 1/10W	J
R0302-03	NRSA02J-102X	MG R	1kΩ 1/10W	J
R0304	NRSA02J-681X	MG R	680Ω 1/10W	J
R0305	NRSA02J-561X	MG R	560Ω 1/10W	J
R0306	NRSA02J-681X	MG R	680Ω 1/10W	J
R0307	NRSA02J-102X	MG R	1kΩ 1/10W	J
R0308	NRSA02J-391X	MG R	390Ω 1/10W	J
R0310	NRSA02J-103X	MG R	10kΩ 1/10W	J
R0311	NRSA02J-472X	MG R	4.7kΩ 1/10W	J
R0312	NRSA02J-821X	MG R	820Ω 1/10W	J
R0351	NRSA02J-103X	MG R	10kΩ 1/10W	J
R0352	NRSA02J-562X	MG R	5.6kΩ 1/10W	J
R0353	NRSA02J-221X	MG R	220Ω 1/10W	J
R0354	NRSA02J-272X	MG R	2.7kΩ 1/10W	J

Symbol No.	Part No.	Part Name	Description	Local
RESISTOR				
R0355	NRSA02J-102X	MG R	1kΩ 1/10W J	
R0356	NRSA02J-392X	MG R	3.9kΩ 1/10W J	
R0357	NRSA02J-472X	MG R	4.7kΩ 1/10W J	
R0358	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	
R0359	NRSA02J-272X	MG R	2.7kΩ 1/10W J	
R0362	NRSA02J-681X	MG R	680Ω 1/10W J	
R0363	NRSA02J-103X	MG R	10kΩ 1/10W J	
R0401	NRSA02J-221X	MG R	220Ω 1/10W J	
R0402	NRSA02J-820X	MG R	82Ω 1/10W J	
R0403	NRSA02J-102X	MG R	1kΩ 1/10W J	
R0404	NRSA02J-224X	MG R	220kΩ 1/10W J	
R0405	NRSA02J-102X	MG R	1kΩ 1/10W J	
R0406	NRSA02J-224X	MG R	220kΩ 1/10W J	
R0407	NRSA02J-221X	MG R	220Ω 1/10W J	
R0408	NRSA02J-820X	MG R	82Ω 1/10W J	
R0409	NRSA02J-221X	MG R	220Ω 1/10W J	
R0410	NRSA02J-820X	MG R	82Ω 1/10W J	
R0411	NRSA02J-333X	MG R	33kΩ 1/10W J	
R0412	NRSA02J-153X	MG R	15kΩ 1/10W J	
R0413	NRSA02J-221X	MG R	220Ω 1/10W J	
R0414	NRSA02J-820X	MG R	82Ω 1/10W J	
R0415	NRSA02J-102X	MG R	1kΩ 1/10W J	
R0416	NRSA02J-224X	MG R	220kΩ 1/10W J	
R0417	NRSA02J-102X	MG R	1kΩ 1/10W J	
R0418	NRSA02J-224X	MG R	220kΩ 1/10W J	
R0431	NRSA02J-563X	MG R	56kΩ 1/10W J	
R0432	NRSA02J-104X	MG R	100kΩ 1/10W J	
R0433-34	NRSA02J-471X	MG R	470Ω 1/10W J	
R0435	NRSA02J-221X	MG R	220Ω 1/10W J	
R0436	NRSA02J-101X	MG R	100Ω 1/10W J	
R0437	NRSA02J-471X	MG R	470Ω 1/10W J	
R0438	NRSA02J-561X	MG R	560Ω 1/10W J	
R0439-40	NRSA02J-102X	MG R	1kΩ 1/10W J	
R0444-45	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	
R0446	NRSA02J-391X	MG R	390Ω 1/10W J	
R0447-48	NRSA02J-101X	MG R	100Ω 1/10W J	
R0451	NRSA02J-102X	MG R	1kΩ 1/10W J	
R0459-60	NRSA02J-101X	MG R	100Ω 1/10W J	
R0466	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	
R0467	QRE121J-181Y	C R	180Ω 1/2W J	
R0468	NRSA02J-221X	MG R	220Ω 1/10W J	
R0469	NRSA02J-820X	MG R	82Ω 1/10W J	
R0470	NRSA02J-221X	MG R	220Ω 1/10W J	
R0471	NRSA02J-820X	MG R	82Ω 1/10W J	
R0472	NRSA02J-333X	MG R	33kΩ 1/10W J	
R0473	NRSA02J-153X	MG R	15kΩ 1/10W J	
R0474	NRSA02J-101X	MG R	100Ω 1/10W J	
R0475	NRSA02J-680X	MG R	68Ω 1/10W J	
R0476	NRSA02J-222X	MG R	2.2kΩ 1/10W J	
R0477-78	NRSA02J-391X	MG R	390Ω 1/10W J	
R0479	NRSA02J-473X	MG R	47kΩ 1/10W J	
R0480	NRSA02J-472X	MG R	4.7kΩ 1/10W J	
R0481	NRSA02J-391X	MG R	390Ω 1/10W J	
R0482	NRSA02J-473X	MG R	47kΩ 1/10W J	
R0484	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	
R0601	NRSA02J-105X	MG R	1MΩ 1/10W J	
R0602	NRSA02J-154X	MG R	150kΩ 1/10W J	
R0603	NRSA02J-822X	MG R	8.2kΩ 1/10W J	
R0604	NRSA02J-182X	MG R	1.8kΩ 1/10W J	
R0605	NRSA02J-392X	MG R	3.9kΩ 1/10W J	
R0611	NRSA02J-102X	MG R	1kΩ 1/10W J	
R0612	NRSA02J-562X	MG R	5.6kΩ 1/10W J	
R0613	NRSA02J-102X	MG R	1kΩ 1/10W J	
R0614-16	NRSA02J-562X	MG R	5.6kΩ 1/10W J	
R0617-18	NRSA02J-101X	MG R	100Ω 1/10W J	
R0620	NRSA02J-223X	MG R	22kΩ 1/10W J	
R0621	NRSA02J-823X	MG R	82kΩ 1/10W J	
R0622	NRSA02J-273X	MG R	27kΩ 1/10W J	
R0623	NRSA02J-183X	MG R	18kΩ 1/10W J	
R0624	NRSA02J-392X	MG R	3.9kΩ 1/10W J	
R0625-26	NRSA02J-103X	MG R	10kΩ 1/10W J	
R0627	NRSA02J-392X	MG R	3.9kΩ 1/10W J	

Symbol No.	Part No.	Part Name	Description	Local
RESISTOR				
R0628	NRSA02J-183X	MG R	18kΩ 1/10W J	
R0629	NRSA02J-273X	MG R	27kΩ 1/10W J	
R0630	NRSA02J-823X	MG R	82kΩ 1/10W J	
R0631	NRSA02J-223X	MG R	22kΩ 1/10W J	
R0633-34	NRSA02J-472X	MG R	4.7kΩ 1/10W J	
CAPACITOR				
C0201-02	QETN1CM-107Z	E CAP.	100μF 16V M	
C0204	QETN1CM-476Z	E CAP.	47μF 16V M	
C0205	QFV71HJ-104Z	MF CAP.	0.1μF 50V J	
C0206	QETN1HM-106Z	E CAP.	10μF 50V M	
C0207	QETN1CM-336Z	E CAP.	33μF 16V M	
C0208	QFLC1HJ-103Z	M CAP.	0.01μF 50V J	
C0221-22	NCB21HK-103X	C CAP.	0.01μF 50V K	
C0223	QETN1CM-476Z	E CAP.	47μF 16V M	
C0224-25	NCB21HK-103X	C CAP.	0.01μF 50V K	
C0228	QETN1CM-107Z	E CAP.	100μF 16V M	
C0229	QETN1CM-476Z	E CAP.	47μF 16V M	
C0230	NCB21HK-103X	C CAP.	0.01μF 50V K	
C0231	QETN1CM-476Z	E CAP.	47μF 16V M	
C0232	NCB21HK-103X	C CAP.	0.01μF 50V K	
C0234	NCB21HK-103X	C CAP.	0.01μF 50V K	
C0235	NDC21HJ-181X	C CAP.	180pF 50V J	
C0236-39	NCB21HK-103X	C CAP.	0.01μF 50V K	
C0240	QETN1CM-476Z	E CAP.	47μF 16V M	
C0241	NCB21HK-103X	C CAP.	0.01μF 50V K	
C0251	QETN1CM-476Z	E CAP.	47μF 16V M	
C0252	NCB21HK-103X	C CAP.	0.01μF 50V K	
C0253	QETN1AM-227Z	E CAP.	220μF 10V M	
C0255	QETN1CM-476Z	E CAP.	47μF 16V M	
C0256	QENC1CM-106Z	BP E CAP.	10μF 16V M	
C0257	QENC1EM-106Z	BP E CAP.	10μF 25V M	
C0260-61	QETN1HM-106Z	E CAP.	10μF 50V M	
C0262	QENC1EM-106Z	BP E CAP.	10μF 25V M	
C0263	QENC1CM-476Z	BP E CAP.	47μF 16V M	
C0292	QETN1CM-227Z	E CAP.	220μF 16V M	
C0293	NCB21HK-103X	C CAP.	0.01μF 50V K	
C0294	QETN1CM-107Z	E CAP.	100μF 16V M	
C0295	NCB21HK-103X	C CAP.	0.01μF 50V K	
C0296	QETN1CM-476Z	E CAP.	47μF 16V M	
C0298	QETN1CM-476Z	E CAP.	47μF 16V M	
C0299	QETN1AM-227Z	E CAP.	220μF 10V M	
C0301	QETN1CM-476Z	E CAP.	47μF 16V M	
C0303	QETN1CM-476Z	E CAP.	47μF 16V M	
C0304	QENC1CM-476Z	BP E CAP.	47μF 16V M	
C0306	NCB21HK-103X	C CAP.	0.01μF 50V K	
C0308-09	NCB21HK-103X	C CAP.	0.01μF 50V K	
C0310	QFV71HJ-104Z	MF CAP.	0.1μF 50V J	
C0351	NDC21HJ-221X	C CAP.	220pF 50V J	
C0352	NDC21HJ-560X	C CAP.	56pF 50V J	
C0353	NDC21HJ-221X	C CAP.	220pF 50V J	
C0354	NDC21HJ-121X	C CAP.	120pF 50V J	
C0362	NCB21EK-104X	C CAP.	0.1μF 25V K	
C0363-64	NDC21HJ-680X	C CAP.	68pF 50V J	
C0401	QENC1EM-106Z	BP E CAP.	10μF 25V M	
C0402-03	QENC1HM-105Z	BP E CAP.	1μF 50V M	
C0404	QENC1EM-106Z	BP E CAP.	10μF 25V M	
C0405	NCB21EK-104X	C CAP.	0.1μF 25V K	
C0406	QENC1EM-106Z	BP E CAP.	10μF 25V M	
C0407-08	QENC1HM-105Z	BP E CAP.	1μF 50V M	
C0412-13	NDC21HJ-101X	C CAP.	100pF 50V J	
C0422	QETN1HM-226Z	E CAP.	22μF 50V M	
C0425-27	NCB21HK-103X	C CAP.	0.01μF 50V K	
C0428	QENC1EM-106Z	BP E CAP.	10μF 25V M	
C0430	NCB21HK-103X	C CAP.	0.01μF 50V K	
C0431	QETN1CM-107Z	E CAP.	100μF 16V M	
C0439-40	QENC1EM-106Z	BP E CAP.	10μF 25V M	
C0444	NCB21EK-104X	C CAP.	0.1μF 25V K	
C0445	QENC1EM-106Z	BP E CAP.	10μF 25V M	
C0448	QETN1HM-106Z	E CAP.	10μF 50V M	
C0449	QETN1CM-227Z	E CAP.	220μF 16V M	

△ Symbol No. Part No. Part Name Description Local

CAPACITOR

C0450-51	QENC1HM-105Z	BP E CAP.	1μF	50V	M
C0601	QENC1CM-226Z	BP E CAP.	22μF	16V	M
C0602	QETN1AM-107Z	E CAP.	100μF	10V	M
C0603	NCB21EK-563X	C CAP.	0.056μF	25V	K
C0604	NCB21HK-393X	C CAP.	0.039μF	50V	K
C0605-06	QETN1HM-106Z	E CAP.	10μF	50V	M
C0607	QENC1CM-226Z	BP E CAP.	22μF	16V	M
C0608	NCB21HK-103X	C CAP.	0.01μF	50V	K
C0609	QETN1HM-105Z	E CAP.	1μF	50V	M
C0610	QENC1CM-226Z	BP E CAP.	22μF	16V	M
C0611-12	QETN1HM-474Z	E CAP.	0.47μF	50V	M
C0613	QETN1HM-226Z	E CAP.	22μF	50V	M
C0614	QETN1CM-227Z	E CAP.	220μF	16V	M
C0615	NCB21HK-152X	C CAP.	1500pF	50V	K
C0616	QETN1HM-475Z	E CAP.	4.7μF	50V	M
C0617	NCB21HK-152X	C CAP.	1500pF	50V	K
C0618	QETN1HM-225Z	E CAP.	2.2μF	50V	M
C0619-20	NCB21EK-124X	C CAP.	0.12μF	25V	K
C0621	QENC1HM-225Z	BP E CAP.	2.2μF	50V	M
C0622-23	NCB21EK-104X	C CAP.	0.1μF	25V	K
C0624	QETN1HM-475Z	E CAP.	4.7μF	50V	M
C0625-26	NCB21EK-104X	C CAP.	0.1μF	25V	K
C0627	QETN1CM-476Z	E CAP.	47μF	16V	M
C0628	NCB21HK-104X	CHIP CAP.	0.1μF	50V	K
C0629	NCB21HK-273X	C CAP.	0.027μF	50V	K
C0630	NCB21HK-104X	CHIP CAP.	0.1μF	50V	K
C0631	QETN1CM-107Z	E CAP.	100μF	16V	M
C0632-33	NCB21HK-104X	CHIP CAP.	0.1μF	50V	K
C0634	NCB21EK-563X	C CAP.	0.056μF	25V	K
C0636-37	NCB21HK-682X	C CAP.	6800pF	50V	K
C0639	NCB21EK-563X	C CAP.	0.056μF	25V	K
C0640	QETC1CM-336Z	E CAP.	33μF	16V	M
C0654	QENC1CM-106Z	BP E CAP.	10μF	16V	M

TRANSFORMER

T0201	CE42697-001	LOWPASS FILTER
T0251	CE42697-001	LOWPASS FILTER
T0301	CE42697-001	LOWPASS FILTER

COIL

L0224	QQL03BJ-220Z	COIL	22μH
L0251	QQL03BJ-220Z	COIL	22μH
L0351	QQL03BJ-330Z	COIL	33μH
L0361	QQL244K-120Z	COIL	12μH
L0502	QQL244K-4R7Z	COIL	4.7μH

DIODE

D0407-11	MA3100/M/-X	ZENER DIODE
D0412	1S5353-X	SI DIODE
D0413-22	MA3100/M/-X	ZENER DIODE
D0423	MA3056/L/-X	ZENER DIODE
D0426	MA3100/M/-X	ZENER DIODE
D0601-02	1S5353-X	SI DIODE

TRANSISTOR

Q0201-05	2SC2412K/QR/-X	SI TRANSISTOR
Q0206	DTC323TK-X	DIGI. TRANSISTOR
Q0251	2SC2412K/QR/-X	SI TRANSISTOR
Q0252	2SA1037AK/QR/-X	SI TRANSISTOR
Q0253-54	2SC2412K/QR/-X	SI TRANSISTOR
Q0301	2SC2412K/QR/-X	SI TRANSISTOR
Q0302	2SA1037AK/QR/-X	SI TRANSISTOR
Q0303-04	2SC2412K/QR/-X	SI TRANSISTOR
Q0351-52	2SC2412K/QR/-X	SI TRANSISTOR
Q0361	2SC2412K/QR/-X	SI TRANSISTOR
Q0401	2SA673/C/-T	SI TRANSISTOR
Q0402	2SA1037AK/QR/-X	SI TRANSISTOR

△ Symbol No. Part No. Part Name Description Local

TRANSISTOR

Q0411	DTA144TKA-X	DIGI. TRANSISTOR
Q0412-13	DTC363TK-X	DIGI. TRANSISTOR

IC

IC0201	TC9090AN	I.C. (DIGI-MOS)
IC0202-03	LA7222	I.C. (MONO-ANA)
IC0292	MC33269D-3.3X	I.C. (MONO-ANA)
IC0293	AN7805F	I.C. (MONO-ANA)
IC0401	CXA1545AS	I.C. (MONO-ANA)
IC0601	AN7395K	I.C. (MONO-ANA)
IC0602	TD7315	I.C. (DIGI-OTHER)
IC0603	BA4558N	I.C. (MONO-ANA)

OTHERS

EFO201	CE42142-222Z	EMI FILTER
J0401	QMD2B04-001	MINI CONNECTOR
J0402	CEMN078-001	PIN JACK
J0403	QMD2B04-001	MINI CONNECTOR
J0404	QNS0001-001	JACK
W0142	QRE141J-OR0	C R
W0192-99	NRSA02J-OROX	MG R
W0200-09	NRSA02J-OROX	MG R
W0213	NRSA02J-OROX	MG R
W0218-22	NRSA02J-OROX	MG R
W0225-28	NRSA02J-OROX	MG R
W0235	NRSA02J-OROX	MG R
W0244-45	NRSA02J-OROX	MG R
W0248-51	NRSA02J-OROX	MG R
W0256-58	NRSA02J-OROX	MG R
W0261	NRSA02J-OROX	MG R
W0264-65	NRSA02J-OROX	MG R
Y0112-13	NRSA02J-OROX	MG R
Y0203	NRSA02J-OROX	MG R
Y0203-04	NRSA02J-OROX	MG R
Y0204	NRSA02J-OROX	MG R
Y0292	NRSA02J-OROX	MG R
Y0501-02	NRSA02J-OROX	MG R
W0047-48	NRSA02J-OROX	MG R
W0050	NRSA02J-OROX	MG R
W0052-55	NRSA02J-OROX	MG R

0.0Ω 1/4W J
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0.0Ω 1/10W J
0.0Ω 1/10W J

3D Y/C MODULE (SHI-0Y021B)

△ Symbol No. Part No. Part Name Description Local

OTHERS

MD0008	SHI-0Y021B	3D Y/C MODULE
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IF P.W. BOARD ASS'Y (SCD-0F002A)

Symbol No.	Part No.	Part Name	Description	Local
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RESISTOR

R0101	NRSA02J-562X	MG R	5.6kΩ 1/10W J	
R0102	NRSA02J-181X	MG R	180Ω 1/10W J	
R0103	NRSA02J-222X	MG R	2.2kΩ 1/10W J	
R0104	NRSA02J-122X	MG R	1.2kΩ 1/10W J	
R0105	NRSA02J-680X	MG R	68Ω 1/10W J	
R0107	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	
R0108	NRSA02J-272X	MG R	2.7kΩ 1/10W J	
R0109	NRSA02J-101X	MG R	100Ω 1/10W J	
R0110	NRSA02J-103X	MG R	10kΩ 1/10W J	
R0111-12	NRSA02J-561X	MG R	560Ω 1/10W J	
R0114	NRSA02J-104X	MG R	100kΩ 1/10W J	
R0115	NRSA02J-272X	MG R	2.7kΩ 1/10W J	
R0116	NRSA02J-273X	MG R	27kΩ 1/10W J	
R0117	NRSA02J-224X	MG R	220kΩ 1/10W J	
R0118	NRSA02J-822X	MG R	8.2kΩ 1/10W J	
R0121	NRSA02J-151X	MG R	150Ω 1/10W J	
R0123	NRSA02J-102X	MG R	1kΩ 1/10W J	
R0124	NRSA02J-103X	MG R	10kΩ 1/10W J	
R0125	NRSA02J-181X	MG R	180Ω 1/10W J	
R0126	NRSA02J-681X	MG R	680Ω 1/10W J	
R0127	NRSA02J-181X	MG R	180Ω 1/10W J	
R0128	NRSA02J-102X	MG R	1kΩ 1/10W J	
R0129	NRSA02J-221X	MG R	220Ω 1/10W J	
R0130	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	
R0131	NRSA02J-681X	MG R	680Ω 1/10W J	
R0132	NRSA02J-101X	MG R	100Ω 1/10W J	
R0133	NRSA02J-471X	MG R	470Ω 1/10W J	
R0134	NRSA02J-391X	MG R	390Ω 1/10W J	
R0135	NRSA02J-224X	MG R	220kΩ 1/10W J	
R0136	NRSA02J-331X	MG R	330Ω 1/10W J	
R0137	NRSA02J-152X	MG R	1.5kΩ 1/10W J	
R0138-39	NRSA02J-471X	MG R	470Ω 1/10W J	
R0601	NRSA02J-222X	MG R	2.2kΩ 1/10W J	
R0602	NRSA02J-332X	MG R	3.3kΩ 1/10W J	
R0603	NRSA02J-103X	MG R	10kΩ 1/10W J	
R0604	NRSA02J-222X	MG R	2.2kΩ 1/10W J	
R0605	NRSA02J-221X	MG R	220Ω 1/10W J	
R0606	NRSA02J-152X	MG R	1.5kΩ 1/10W J	
R0607	NRSA02J-182X	MG R	1.8kΩ 1/10W J	
R0608	NRSA02J-561X	MG R	560Ω 1/10W J	
R0609	NRSA02J-471X	MG R	470Ω 1/10W J	
R0610	NRSA02J-222X	MG R	2.2kΩ 1/10W J	
R0611	NRSA02J-152X	MG R	1.5kΩ 1/10W J	
R0612	NRSA02J-471X	MG R	470Ω 1/10W J	
R0615	NRSA02J-181X	MG R	180Ω 1/10W J	
R0616	NRSA02J-220X	MG R	22Ω 1/10W J	
R0620	NRSA02J-102X	MG R	1kΩ 1/10W J	
R0621	NRSA02J-393X	MG R	39kΩ 1/10W J	
R0622	NRSA02J-103X	MG R	10kΩ 1/10W J	
R0623	NRSA02J-391X	MG R	390Ω 1/10W J	
R0624	NRSA02J-101X	MG R	100Ω 1/10W J	
R0625	NRSA02J-561X	MG R	560Ω 1/10W J	
R0626	NRSA02J-182X	MG R	1.8kΩ 1/10W J	
R0627-28	NRSA02J-561X	MG R	560Ω 1/10W J	

CAPACITOR

C0101-07	NCB21HK-472X	C CAP.	4700pF 50V K	
C0108	NCB21HK-103X	C CAP.	0.01μF 50V K	
C0110-11	NCB21HK-103X	C CAP.	0.01μF 50V K	
C0112	NCB21EK-104X	C CAP.	0.1μF 25V K	
C0113	NCB21HK-103X	C CAP.	0.01μF 50V K	
C0114	QETN1CM-474Z	E CAP.	0.47μF 50V M	
C0116	QETN1CM-474Z	E CAP.	0.47μF 50V M	
C0118	NCB21HK-103X	C CAP.	0.01μF 50V K	
C0119-20	QETN1CM-476Z	E CAP.	47μF 16V M	
C0121	NCB21HK-103X	C CAP.	0.01μF 50V K	
C0122	QETN1CM-476Z	E CAP.	47μF 16V M	
C0123	NCB21HK-103X	C CAP.	0.01μF 50V K	
C0124	NCB21HK-103X	C CAP.	0.01μF 50V K	
C0125-29	NCB21HK-103X	C CAP.	0.01μF 50V K	
C0130-31	QETN1CM-107Z	E CAP.	100μF 16V M	

Symbol No.	Part No.	Part Name	Description	Local
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CAPACITOR

C0132	NCS21HJ-221X	C CAP.	220pF 50V J	
C0133	QETN1CM-476Z	E CAP.	47μF 16V M	
C0601	QETN1HM-106Z	E CAP.	10μF 50V M	
C0602	NCB21HK-223X	C CAP.	0.022μF 50V K	
C0603-04	NDC21HJ-470X	C CAP.	47pF 50V J	
C0606	NCB21HK-103X	C CAP.	0.01μF 50V K	
C0607	QETN1CM-107Z	E CAP.	100μF 16V M	
C0608-12	NCB21HK-103X	C CAP.	0.01μF 50V K	

TRANSFORMER

T0101	CELT001-303J3	C.WAVE TRANSF.		
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COIL

L0101	QQLZ014-2R2	PEAKING COIL	2.2μH	
L0104	QQL244K-120Z	COIL	12μH	
L0105-06	QQL244K-8R2Z	COIL	8.2μH	
L0107	QQL244K-180Z	COIL	18μH	
L0108	QQL05BK-8R2Z	COIL	8.2μH	
L0601	QQL244K-120Z	COIL	12μH	

DIODE

D0101-02	1SS85-T2	SI.DIODE		
D0104	1SS353-X	SI.DIODE		

TRANSISTOR

Q0101	2SC5083/L-P/-T	SI. TRANSISTOR		
Q0102	DTC124EKA-X	DIGI. TRANSISTOR		
Q0103	2SC2412K/QR/-X	SI. TRANSISTOR		
Q0104	2SA1037AK/QR/-X	SI. TRANSISTOR		
Q0105-06	DTC124EKA-X	DIGI. TRANSISTOR		
Q0107	2SC2412K/QR/-X	SI. TRANSISTOR		
Q0108-09	2SA1037AK/QR/-X	SI. TRANSISTOR		
Q0110-11	DTC124EKA-X	DIGI. TRANSISTOR		
Q0112	2SC2412K/QR/-X	SI. TRANSISTOR		
Q0113	2SA1037AK/QR/-X	SI. TRANSISTOR		
Q0601-02	2SC2412K/QR/-X	SI. TRANSISTOR		
Q0603	DTC124EKA-X	DIGI. TRANSISTOR		
Q0604	2SC2412K/QR/-X	SI. TRANSISTOR		
Q0605	DTC124EKA-X	DIGI. TRANSISTOR		
Q0607	2SA1037AK/QR/-X	SI. TRANSISTOR		
Q0608	2SC2412K/QR/-X	SI. TRANSISTOR		

IC

IC0101	MS2342SP	I.C. (MONO-ANA)		
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OTHERS

CF0101	QAX0472-001	CERAMIC TRAP		
CF0102	QAX0358-001	CERAMIC FILTER		
CF0103	QAX0339-001	CERAMIC FILTER		
CF0104	TPS5.5MW	CERAMIC FILTER		
CF0105	TPS6.5MB	CERAMIC FILTER		
CF0106	TPSH6.0MB	CERAMIC FILTER		
CF0601	SF5H4.5MCB	CERAMIC FILTER		
CF0604	QAX0336-001	CERAMIC FILTER		
CF0606	QAX0337-001	CERAMIC FILTER		
CF0608	QAX0338-001	CERAMIC FILTER		
SF0101	QAX0323-001	SAW FILTER		
SF0102	QAX0325-001	SAW FILTER		
W0017-26	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	
W0029-31	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	
W0039-41	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	
W0043-45	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	

TELETEXT P.W. BOARD ASS'Y (SCD-0T001A)

Symbol No.	Part No.	Part Name	Description	Local
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RESISTOR

R0004	NRSA02J-222X	MG R	2.2kΩ 1/10W	J
R0005	NRSA02J-102X	MG R	1kΩ 1/10W	J
R0006	NRSA02J-152X	MG R	1.5kΩ 1/10W	J
R0007	NRSA02J-333X	MG R	33kΩ 1/10W	J
R0008	NRSA02J-182X	MG R	1.8kΩ 1/10W	J
R0009	NRSA02J-181X	MG R	180Ω 1/10W	J
R0010	NRSA02J-182X	MG R	1.8kΩ 1/10W	J
R0011	NRSA02J-181X	MG R	180Ω 1/10W	J
R0012	NRSA02J-182X	MG R	1.8kΩ 1/10W	J
R0013	NRSA02J-181X	MG R	180Ω 1/10W	J
R0014-15	NRSA02J-561X	MG R	560Ω 1/10W	J
R0016-18	NRSA02J-0R0X	MG R	0.0Ω 1/10W	J
R0021	NRSA02J-272X	MG R	2.7kΩ 1/10W	J
R0022	NRSA02J-0R0X	MG R	0.0Ω 1/10W	J

CAPACITOR

C0001	QETN1CM-476Z	E CAP.	47μF 16V	M
C0003	NCB21HK-103X	C CAP.	0.01μF 50V	K
C0004	NCS21HJ-151X	C CAP.	150pF 50V	J
C0005-06	NDC21HJ-150X	C CAP.	15pF 50V	J
C0007	QETN1AM-107Z	E CAP.	100μF 10V	M
C0008	NCB21HK-102X	C CAP.	1000pF 50V	K
C0009	NCS21HJ-221X	C CAP.	220pF 50V	J
C0010	QETN1AM-107Z	E CAP.	100μF 10V	M
C0011	NCB21HK-103X	C CAP.	0.01μF 50V	K
C0012	NCB21HK-104X	CHIP CAP.	0.1μF 50V	K
C0013	NCB21HK-103X	C CAP.	0.01μF 50V	K
C0014	QETN1AM-226Z	E CAP.	22μF 50V	M
C0015	NCB21HK-104X	CHIP CAP.	0.1μF 50V	K
C0016-18	NCB21HK-103X	C CAP.	0.01μF 50V	K
C0022-24	QENC1HM-105Z	BP E CAP.	1μF 50V	M

TRANSISTOR

Q0002	2SC2412K/QR/-X	SI TRANSISTOR
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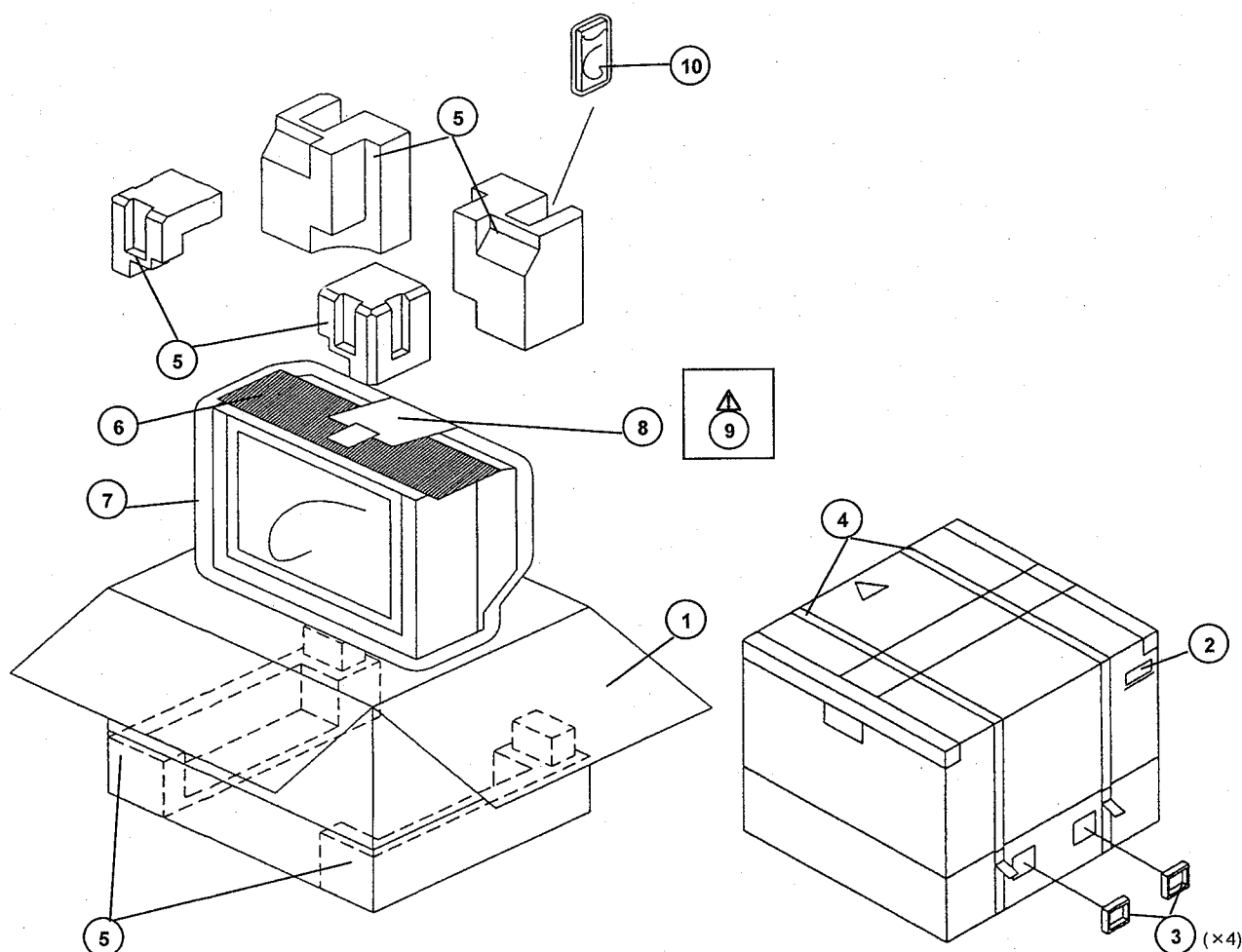
IC

IC0001	CF72306	I.C. (DIGI-MOS)
IC0002	CF70211	I.C. (DIGI-MOS)

OTHERS

K0001-02	CE41433-001Z	BEADS CORE		
W0003	NRSA02J-0R0X	MG R	0.0Ω 1/10W	J
W0010-11	NRSA02J-0R0X	MG R	0.0Ω 1/10W	J
X0001	CE41257-001Z	CRYSTAL		

PACKING



PACKING PARTS LIST

△ Ref.No.	Part No.	Part Name	Description	Local
1	LC10238-004A	PACKING CASE		
2	LC30390-009A	POS LABEL		
3	CP30903-001	JOINT	(×4)	
4	CP30371-00G	BAND	(×2)	
5	LC10200-001B	CUSHION ASSY	6pcs in 1set	
6	CP40248-006	TOP COVER		
7	CP30974-007	POLY BAG		
8	CP30975-001	POLY BAG		
△ 9	LCT0212-001A	INST BOOK		
10	RM-C232-1C	REMOCON UNIT		

JVC

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